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ABSTRACT

This book reports on an experimental bilingual education program conducted in Peru by Peruvian educators and Summer Institute of Linguistics (SIL) linguists. Sections of the book discuss: (1) the historical perspective of the program; (2) program aspects such as teacher training, goals, and curriculum; (3) what this program may contribute to the development of future programs; (4) the preparation of materials in vernacular languages; and (5) bilingual education as it relates to the development of indigenous communities. Papers include "The Role of Vernacular versus Prestige Languages in Primary Education" and "Training to Train: The Key to an Ongoing Program" by Mildred L. Larson, "The Training of Bilingual Teachers" by Olive A. Shell, and "The Challenges of Primer Making" by Patricia M. Davis. Tables include teacher-training course statistics, curriculum and textbooks for bilingual schools, and a synopsis of SIL work among the Aguarunas. Figures include sample pages from texts, primers, and readers, and a variety of letters and forms for supervisory use. Photographs of students, teachers, and other community members are provided. Appendices include the resolution authorizing bilingual education in the Peruvian jungle, laws relating to bilingual education, and sample pages of the 1977 curriculum. (JK)

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Bilingual Education:

An Experience in Peruvian Amazonia

ED206160

Edited by

Mildred L. Larson

and

Patricia M. Davis

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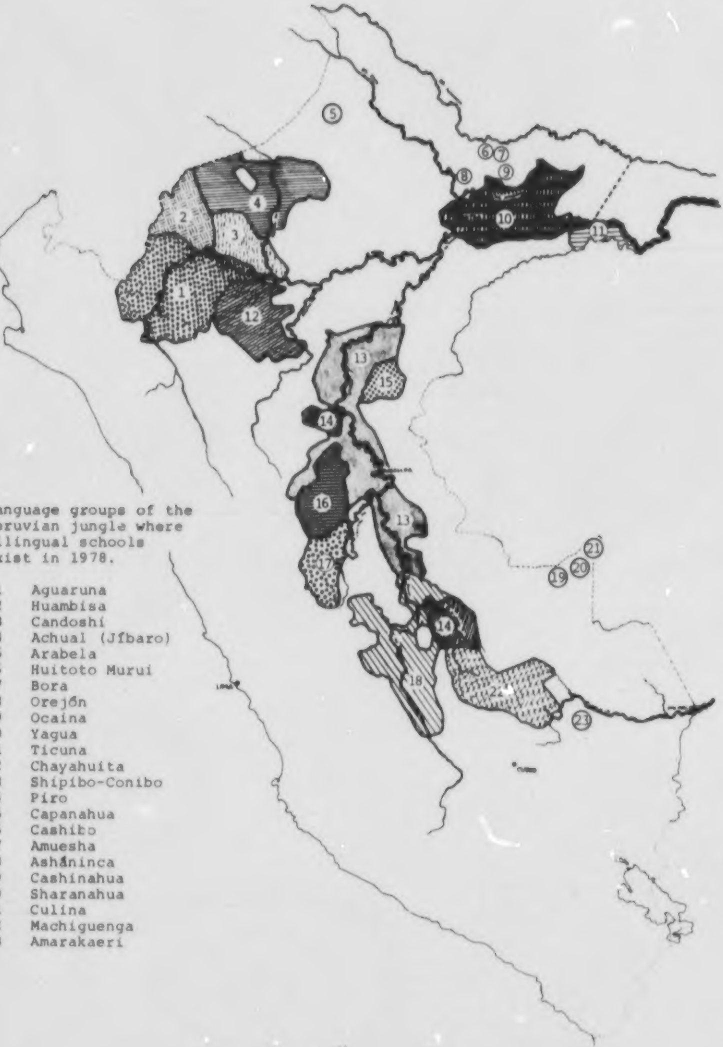
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Language groups of the Peruvian jungle where bilingual schools exist in 1978.

1	Aguaruna
2	Huambisa
3	Candoshi
4	Achual (Jíbaro)
5	Arabela
6	Huitoto Murui
7	Bora
8	Orejón
9	Ocaina
10	Yagua
11	Ticuna
12	Chayahuita
13	Shipibo-Conibo
14	Piro
15	Capanahua
16	Cashibo
17	Amuesha
18	Asháninca
19	Cashinahua
20	Sharanahua
21	Culina
22	Machiguenga
23	Amarakaeri

FOREWORD

One of the suprisingly little know facts about the Summer Institute of Linguistics (SIL) is that it is considerably more than a group of Bible translators. As any good linguist knows, before one can translate anything, one first has to know the language, make use of a writing system (if there is one), consider very carefully the literacy tradition (if there is one), determine the appropriate code into which the translation will be made, and take into consideration all the appropriate cultural conditions related to such a translation. The task also can involve educational issues such as teaching of literacy skills, training of teachers, and discovering and adapting to local education and social policy. Since literacy does not develop in a social vacuum, it is also useful to determine the most pressing community development concerns in order to help the target population with its problems while literacy skills are being acquired. Such a strategy turns out to be pedagogically sound as well, as the recent "Language for Special Purposes" approach has pointed out. Bible translation, in such a context, does not and cannot take place until the social, linguistic, and educational concerns are well established.

The contribution which specialists in community development, literacy, and linguistics can make to a developing nation are many. SIL has made and continues to make significant humanistic contributions all over the world. What this organization has consistently failed to do is to document such contributions. In their effort to make their contribution as invisible and as humble as possible, SIL linguists have left few traces of their social and educational contributions. What they have left is their linguistic analyses, which few but other linguists recognize or care about, and their Bible translations, which have led to mixed emotions on the part of those who are not sympathetic to Christianity.

This volume is the sort of evidence of community cooperation, educational contribution, and social or humanistic concerns which SIL seldom makes public. Several years ago the Center for Applied Linguistics was searching desperately for evidences of effective bilingual education programs as part of their work in developing a master plan for the San Francisco Unified School District. The U.S. Supreme Court had just ruled in favor of the Lau family in the precedent setting *Lau* vs. *Nichols* case. Dr. Rudolph C. Troike and I took on the task of developing this plan, but we realized immediately that there were a number of social, political, and educational concerns to be dealt with. This was not a simple case involving the intersection of the law and language learning. In our search for examples of cooperation between ethnic groups, educators, government, local scholars, nationalities, etc., we encountered the Peru experiment in bilingual education. We talked with Peruvian scholars and with SIL personnel, and we learned that there was a very interesting model in Peru which might well be generalizable or improved upon if only it were made public. Dr. Troike and I encouraged the participants in this project to make their work public, not simply because the good, socially oriented work of SIL is frequently overlooked or dismissed as wrong-headed or nonexistent, but because a general knowledge of how such programs develop and operate is not yet clear.

One of the greatest contributions which a project of this sort can make is to report its procedures, its successes, its failures, and its views about pressing policy issues so that there will be no misunderstanding of the intentions, the goals, the methodology, or the product. SIL has not been alone in its tendency to get straight to the product, whether it be healthier people, better crops, a literate society, or spiritual well-being, without stopping to articulate carefully each step which led to that product. Such a procedure is the hallmark of accountability. Since education is being called upon more and more to be accountable to its public, it is also reasonable to expect SIL's work to provide such accountability.

Although many of the chapters in this work are prepared by SIL personnel, it is noteworthy that significant chapters are also prepared by important Peruvian scholars and that it was seen as important to involve an indigenous Aguaruna in the publication, as he was involved in the actual work.

This program is not a perfect program, as the participants will all agree. But it is well worth knowing about, whether or not one's situation is similar to that of Peru. Most of the same major questions of bilingual education occur in almost all contexts. The roles of the various languages always need to be assessed. National and local language policy has to be considered. Cultural differences must be addressed. Local views of education must be discovered. Teachers must be found and educated. Schools must be located and utilized. The community must be involved not just in an advisory way but as leaders. The benefits of bilingual education must be articulated and explained to the community and to the government. Materials must be developed, tested, and used. Writers of materials must be found and trained. Literacy must be made relevant to local political, economic, and social needs. And, finally, the program must be described and made known for emulation as well as for criticism. This volume is that description. This is how it was done in Peru. The program specifics may not apply exactly to San Antonio, to Jakarta, or to Khartoum, but it is safe to estimate that most of the same general issues are involved. The insights gained and shared here thus take on far greater importance for the field as a whole, providing invaluable data which can be revised and adapted as necessary to be relevent to most bilingual education situations.

Roger W. Shuy

PREFACE

During the past twenty-five years the Peruvian government has sponsored an experiment in bilingual education. This program is unique not only because it has involved preparing teachers and materials for numerous languages simultaneously but particularly because the teachers trained were often barely literate themselves, their main credential being that they spoke the vernacular language of the group where the school was to be established and a little of the national language, Spanish. Their formal education was often limited to a year or two of primary education, and some entered teacher training with no previous formal education. Nevertheless, as the program developed, these same teachers and many of their students became alert citizens contributing their time, energy, and resources to the development of their communities.

To carry on the experiment, the Peruvian Ministry of Education requested the assistance of members of the Summer Institute of Linguistics (SIL). During these twenty-five years of bilingual education in the jungle, Peruvian educators and SIL linguists have worked together in all aspects of the program. The purpose of this book is to report the results of the experiment and to share the experience gained.

The book brings together under one cover both discussion of a philosophical nature and the presentation of concrete details of the program. Some chapters may seem very theoretical and general, others very simplistic and detailed. The purpose of including both kinds of material in the same volume is to emphasize the fact that a program of this type is not based solely on general principles of education: it is successful only as it is also worked out in careful minutiae on the practical level.

The book is divided into five sections, each beginning with an introduction which summarizes its content. Section one gives historical perspective to the program; section two describes aspects such as teacher training, goals, and curriculum; section three summarizes what has been learned during the past twenty-five years; section four adds information concerning the various aspects of preparing materials in vernacular languages; and section five relates the program to the broader framework of the community and culture.

The editors are extremely grateful to all those who contributed to this volume. Information about the authors is given in the introductions to the sections. We would also like to thank Viola de Escobar, who translated some of the chapters from Spanish into English. Finally, to numerous SIL colleagues, who have generously given of themselves to counsel, type, proofread, and help in many ways we acknowledge our great debt of gratitude.

—Mildred L. Larson and Patricia M. Davis
—Summer Institute of Linguistics

PART I

HISTORICAL PERSPECTIVE

PART I
Historical Perspective

When bilingual education was initiated in Peruvian Amazonia, the program was considered experimental and innovative. The purpose of this section is to provide the reader with a historical perspective and other background information for understanding the program. A discussion of the role of vernacular languages versus prestige languages in primary education—a key point of controversy at the time the experiment began—is given in the first chapter. The arguments which were being used by both proponents and opponents of the vernacular language question are outlined, followed by a demonstration of how bilingual education, which utilizes both the vernacular and the prestige language, was chosen as the solution because it does not eliminate one or the other, but uses each in specific roles.

The author of the first chapter is also one of the editors of the present volume. Mildred L. Larson, Ph.D. in Humanities from the University of Texas at Arlington, is the author of numerous linguistic studies about the Aguaruna (Jivaro) language and also of various materials dealing with translation theory. For many years she worked with the bilingual school program in the Peruvian jungle, preparing materials in the Aguaruna language and in Spanish, working with the Aguaruna teachers, and teaching pedagogy in the training courses.

The second chapter describes the program in a very general way, outlining the underlying philosophy and sketching the organization of its various aspects, such as teacher training, the village schools, and types of materials used. It also presents a bird's-eye view of what is treated in more detail in Parts II and III. This overview is the combined work of Mildred L. Larson, Olive A. Shell, and Mary Ruth Wise. Larson has already been mentioned as author of chapter 1. Olive A. Shell, Ph.D. in Linguistics, University of Pennsylvania, was subdirector of the first teacher-training course for bilingual teachers in the Peruvian jungle. Subsequently she collaborated in the preparation of curriculum and materials for the program as a whole. Also, as linguistic investigator of the Cashibo language, she prepared materials for the teachers of that language group. She is the author of various linguistic studies concerning Cashibo, as well as of comparative studies in general and of the Pano language family in particular. Mary Ruth Wise, Ph.D. in Linguistics, University of Michigan, specializes in Arawakan languages, especially Amuesha and Nomatsiguenga-Campa. Her publications include studies in anthropology, folklore, and linguistics. For a number of years she has been coordinator and editor of ethnolinguistic studies for SIL in Peru.

In the third chapter of this section, Alberto Escobar shows that historically some countries have been considered monolingual, even when, as a matter of fact, the citizens within their borders claim many different mother tongues. He suggests that there should be a way to keep the diversity of language within a nation and still maintain unity. Escobar speaks from the Peruvian perspective as professor and ex-dean of the Department of Humanities of the National University of San Marcos in Lima. He is also the author of various books of poetry, linguistics, and literary criticism. He has studied philology and linguistics in Europe and the United States and is currently on the faculty of the University of Grenoble, France. His discussion presents a challenge to countries in which languages other than the national language are spoken.

In chapter 4, Alejandro Ortiz traces anthropological reasons for bilingual education. From his point of view, control of the printed word, by means of both reading and writing, is essential in order for minority groups to attain a just relationship with the Western majority cultures. Second in order of priority is their need to acquire the majority language in order to conduct fruitful dialogue. Ortiz answers the objections of those who oppose the use of the vernacular languages, recommends further linguistic research in the languages of Peru for educational purposes, and advocates the training of vernacular-speaking teachers. He sees such efforts as the basis of dialogue that can enrich and challenge all Peruvians. Ortiz received his training in anthropology at the National University of San Marcos in Lima and the University of Paris, and is full professor at the Catholic University of Lima as well as associate professor at the National University of San Marcos. He is known for his folklore studies and numerous other publications.

Chapter 5 is written by a young man, Gerardo Wipio, who knows bilingual education firsthand, not only from the point of view of an educator, but from the point of view of a monolingual Indian child entering school for the first time. After finishing his primary education in an Aguaruna bilingual school, he continued his studies during summers while teaching, and later supervising, bilingual schools. He is currently a supervisor in one of the Aguaruna District Education centers and has prepared vernacular materials for the Aguaruna schools. In this chapter he describes the traditional Aguaruna culture and then shows the disintegration caused through exploitation of the society by rubber gatherers and gold seekers. The Aguaruna community decided that the only answer to the problem was education. Wipio shows how bilingual education provided a remedy for the problem of cultural disintegration.

I

THE ROLE OF VERNACULAR VERSUS PRESTIGE LANGUAGES IN PRIMARY EDUCATION

Mildred L. Larson

INTRODUCTION

The bilingual education program of the Peruvian jungle began in 1953. While a period of five to ten years is often too short to see the significant results of such an experiment, it has now been a quarter of a century since the first bilingual schools were opened in scattered, isolated villages of the Amazonian jungle, and a report is therefore in order. The purpose of this book is to make available the details concerning the program and to record the impressions and recommendations of linguists and educators who have been involved in this bilingual education program.

Attitudes towards the use of the vernacular languages in primary education have changed throughout the world during these past twenty-five years. The UNESCO report of 1953 clearly stated that:

> It is axiomatic that the best medium for teaching a child is his mother tongue... we recommend that the use of the mother tongue be extended to as late a stage in education as possible (UNESCO 1953b:11, 47).

Nevertheless, up until that time most countries had a policy of eliminating the vernacular through education in the national (prestige) language. That attitude towards the vernacular languages has changed, and today many countries around the world have bilingual education programs that emphasize the use of the mother tongue in primary education. Have some of the factors changed? Or is it the evaluation of the factors that has changed?

It is an interesting coincidence that the Peruvian jungle experiment got under way the same year that the UNESCO proclamation came out. Before going into the details of the Peruvian program, it is important to see the historical perspective behind the prestige-language-versus-vernacular-languages controversy going on at that time.

Since language is the primary mode of education, it is understandable that throughout history much education has centered in other-language learning. Until recently education was not only primarily language learning, but also primarily for the elite class, and centered in the study of other languages for religious and scholarly purposes. As Lewis (1948:35) points out:

> ... the traditional center of all school education and its characteristic achievement is the initiation of the child into language. It is true of every civilized society of whose educational system we have records; of ancient Greek and Roman education, of Hebrew, education throughout the Middle Ages and later, of Chinese education, almost wholly linguistic for more than twenty-five centuries. And it has been the tradition of modern education since the Renaissance. To recognize this enables us to understand some of the difficulties of education in our schools today. The linguistic tradition is one of the chief clues to the history of education in the modern world and therefore to some of its strange aberrations, particularly to the oddity in European societies—the persistence of an apparently inordinate attention to the study of two ancient obsolete languages, often at the expense of the living mother tongue. Throughout all the changes that have taken place in education, the school is still influenced by its heritage of the linguistic tradition.

In the sixteenth century, with the education movement, the use of the vernacular was not considered. "Children were sent to school in order to learn Latin.... Calvin's teacher in a picture of the good student writes—'Never does he speak French'. The problem of bilingualism did not at the time exist for the teacher" (Malherbe 1937:82).

The mother tongue gradually came into the schools, with growth of nationalism as an important factor in this development. The use of the mother tongue became more prominent, and by the nineteenth century, with an increase in literacy, there was a conflict between ancient linguistic traditions and the political, social, and economic needs of the various countries. This led to what Lewis (1948:38) calls a "stratification of education according to social classes." The elite were given the traditional linguistic education, known as secondary education, while the masses were to be content with elementary education, which consisted of reading and writing in the vernacular.

In the early years of the twentieth century, there were many bilingual schools throughout Europe, and considerable discussion took place about bilingual education. "As early as 1910, Ghibu was able to list almost a hundred items of bibliography on bilingual schools in German, French, Hungarian, and Rumanian" (Weinreich 1953:121).

"In earlier times [in Europe] there seems to have been little systematic attempt to impose the language of a conquering people on the subject people" (Sapir 1949:30). However, in colonial times, with the development of the idea of linguistic symbols to correspond to a sovereign state, there was increased pressure on the peoples within the borders of the state to learn a state language, and thus the antagonism between the vernacular and prestige languages arose.

Because of this background many countries throughout the world insisted on education in the prestige language, in spite of the fact that the people being educated did not speak it. Historically, the two main forces were the tradition of education as language learning and the concept of education as a political process and, therefore, the use of the state language by all.

The UNESCO (1953b:46) report defines a vernacular language as "a language which is the mother tongue of a group which is socially and politically dominated by another group speaking a different language." A vernacular language, as the term was used then, stood in contrast to a prestige language—the language used by the group which is socially and politically dominant.

When the Peruvian jungle experiment began in 1953, the question of which language to use in primary education was being debated. Reasons were expressed for the use of the prestige language and other reasons for the use of the vernacular. These reasons can be summarized under six main topics, all of which are still relevant in today's discussions concerning bilingual education.

REASONS FOR THE USE OF THE PRESTIGE LANGUAGE

The reasons given for the exclusive use of the prestige language in primary education are summarized below. They are ordered here according to the importance placed on them in most situations where the prestige language has been chosen as the language of primary education. This is not intended to be an exhaustive discussion but rather a brief survey of the reasons that were being given for using the prestige language at the time when the first Peruvian jungle bilingual schools were being established.

Political reasons

The idea of a national language as a symbol of political unity is a relatively recent development heightened by the printed word. The stress on dividing up Europe on a language basis at the Treaty of Versailles after the First World War added new emphasis to this idea. There are countries, such as Switzerland, that lack linguistic unity but still have attained political unity. Nevertheless, there is a certain reality to the fact that language may act as a factor in integration of the political unit.

This fact has been used in a distorted way by colonial administrations in order to keep people down, while all the time suggesting that it is the best way to unity. As Kennedy (1945:317) states, "Colonial administrations, indeed, are not merely disinterested in native education: they distrust and even fear it, and with reason." According to him,

> ... deliberate or not, this lack of attention to education makes very good sense when considered in connection with the other elements in the colonial system. Education of natives would threaten the whole structure of political and economical super-ordination and subordination. Education would be dynamite for the rigid caste systems of colonies (Kennedy 1945:311).

However, in the majority of the cases, the governments involved honestly felt that the use of the national language in education was the quickest way to teach the various groups in the country the national language and thereby make them a useful part of the country. Indeed, many have felt this so strongly that they have condemned the use of the vernacular in any form in the educational system.

Socioeconomic reasons

Certainly one of the main reasons individuals desire education is to gain position in the society and then be able to earn a good living. In many countries people desire education in the prestige language because it will give them personal economic advantages in job acquisition. Often it will put them in an elite class. The mastery of the prestige language is, therefore, a means of social advance, not just communication.

LePage (1964:24) says that, inasmuch as one of the functions of education is economic, the goal must be to learn one of the major international languages, which will enable the children to learn about science and thus "transform their country in as short a time as possible." The goal of education in a major language is often given as a reason for not using the vernacular language in primary education.

Financial reasons

Whatever educational program is undertaken, the financial problems must be carefully considered. One of the reasons often given for using the prestige language only is that it is much less expensive to produce all books in one language. The expense of production of literature for small language groups is purported to be too great to make it worthwhile. The following observation was made in the UNESCO (1953a:29) study of the problem in Africa: "... the presence in the country of a number of vernacular languages spoken by very small groups makes the development of these languages as adequate school media too expensive and difficult to be practicable."

Along with the expense of producing literature is the problem of training teachers for a program using the vernaculars, i.e., training native speakers of the vernacular to teach the material in the vernacular. It is claimed that in cases where there are numerous small language groups, this would be too difficult and too expensive.

Psychological reasons

It is argued that the use of the prestige language gives a security to the student since it makes him feel a part of the national life, i.e., one of the elite class. This factor, however, is a very complex one, as LePage (1964:24–25) indicates:

> There can be no doubt that to educate a child in a language which is not that of either of his parents tends to alienate him from his parents; to educate him in a language which is not one of the indigenous languages of the country tends to alienate him from the culture of his country. If he grows up with one language for schoolroom and another for the world outside the schoolroom he may well develop a kind of dual personality, one side of which—that which is being developed by the ideas which he encounters and the training he receives in school—is

> sealed off... from the side which makes the everyday social and cultural and moral decisions.

On the other hand, the provision of education in the vernacular rather than in an international language often arouses fierce resentment among the students themselves and among their parents. Because of the difficulties in the way of providing higher education and professional training in the vernacular, ambitious students find themselves in a dead end when they finish their primary education.

The psychological reactions depend heavily on the individual situation. "School bilingualism itself may take very different shades according to whether the language used in school is a language eagerly sought for, or the language of a nation feared, hated and despised" (Malherbe 1937:84). If the prestige language is learned in emotionally favorable situations, then good psychological results may come from whatever language is used. In such an ideal situation, the use of the prestige language could well give a feeling of security and of personal identification with the larger society.

Educational reasons

The preparing of material not only raises financial problems, as mentioned above, but may also be a problem from an educational point of view if the vernacular language is used. In most cases the vernacular languages lack the technical and scientific material needed to bring the students to the present state of scientific progress. The vernaculars do not have a vocabulary covering these fields. The use of a prestige language, especially an Indo-European language, would give the students access to present knowledge on science and technology. Students using only the vernacular would be cut off from this knowledge unless it could be incorporated somehow into materials in their language, which would be an immense task. As Bram (1964:54) states, "What will the natives read after having mastered the limited elementary manuals prepared for them? How far, in other words, will the newly acquired literacy take them toward their goal of direct communication with the world?" Without a doubt advanced material would involve a great deal of borrowing of terms from the prestige language, and it may well be argued that it would be better for the students to learn in the prestige language to overcome this problem.

Linguistic reasons

Many countries are faced with the problem of multilingualism: within their borders there are numerous distinct languages and local dialects. For these countries the use of the prestige or national language presents itself as a way of overcoming this multiplicity. By the use of only one language in education, it is hoped that linguistic unity will eventually be attained. In countries with multilingualism, the need for communication between the various groups within the country is a strong reason for carrying on education in a uniform language.

Under educational reasons we have already mentioned the lack of scientific and technical vocabulary in the vernaculars. There is also the added linguistic problem of devising orthographies if the vernaculars are to be used. This would involve linguistic help in determining the phonological systems of the various languages. General use of the prestige language would eliminate the need for such linguistic work.

REASONS FOR THE USE OF VERNACULAR LANGUAGES

While the factors mentioned above were being offered to defend the exclusive use of the prestige language, these same factors were also cited to defend the use of vernaculars. However, the order of importance is different, and the way of looking at each topic is different. The factors mentioned above are again discussed below from the point of view of the use of the vernacular in primary education, but the ordering of the topics is changed since the relative importance is different.

Psychological reasons

There is no doubt that for children beginning school the psychological adjustments are greatly intensified by the use of a foreign language as the medium of education. The extent to which they have had contact with this foreign language, and the intensity of their desire to learn it, will affect the degree of adjustment.

> It is generally agreed by educationists and psychologists that a child should first learn to read and write in the language spoken in his home and in which his first verbal communication with parents and siblings takes place. When this foundation has been laid he can acquire a full command of his own and, if necessary, of other languages; without it, there is danger that he will never achieve a thorough command of any language (UNESCO 1953a:67).

In the listing of reasons for the vernacular, the UNESCO report on Africa goes so far as to indicate that the emotional and social adjustments which need to be made if the mother tongue is not used are "... almost overwhelming. He needs as much moral support as can be given him and nothing can facilitate his familiarization with the school as much as a teacher who uses his mother tongue". (UNESCO 1953a:27).

The psychological adjustment to school life is certainly important, but the relation of the child to the learning process is even more vital. This will be discussed in the following section, but from the psychological point of view we should note that:

> The mother tongue also plays an indispensable role in the formation of the child's concepts of the world and of his categories of thought. By the time the young child comes to school he has attained a considerable mastery of a complex instrument of learning, his mother tongue, and this forms a natural and easy means for his further linguistic, intellectual and emotional development. To use any language other than the mother tongue is to jettison

> the child's acquired store of experience and language, and to compel him to seek new symbols of communication and thought.... The mother tongue is a medium used to integrate the work of the classroom with the experience of children outside the school (UNESCO 1953a:27).

Weinreich, (1953:76) in his discussion of order of learning in bilingualism, says that "the distinction of having been learned first is so great that the first-learned language, the 'mother-tongue', is generally considered dominant by definition." Although we are not dealing with bilingualism here, except as education in the prestige language would lead to bilingualism, the concept of the dominance of the mother tongue is a factor in favor of using the vernacular. There is certainly strong emotional attachment to the mother tongue even after a second language is learned.

The insistence on a prestige language for education makes speakers of the vernacular feel that in some way their language is inferior and, hence, that they themselves are inferior. It is a psychological boost to a people to have their language in writing and used as a vehicle of communication in written form. "The effect of substituting a language would mean loss of pride, of selfconfidence, in the people whose language and tradition are treated as inferior" (Malherbe 1937:88).

There are also the psychological problems which arise between the generations if the children begin learning in a foreign language. "The children who learn the new language are ashamed of their parents, become disrespectful, and are ashamed to introduce their new friends to their people" (Malherbe 1937:91).

The psychological effects are even more pronounced when some of the students in the class know the prestige language and some do not—a situation which has occurred frequently in the United States. Scotford (1953:40-41) gives some very forceful illustrations of Mexican children in American schools. The following is one such case:

> To the American child the first grade teacher is a mother substitute to whom he can turn with some assurance of

> being understood. With the Spanish-speaking child this usually does not work. The teacher may not understand his language. She is alien to him, he does not trust her. Oftentimes a most unfortunate attitude toward the school is developed.... He does not feel at home... therefore he resists that which is offered.
>
> ... The work of the school may be both difficult and uninteresting. The language must be learned, as well as the usual lessons. Almost inevitably little Benito and his sister Carmencita are retarded. They may be kept in first grade for two or three years, becoming increasingly bored....

What a difference it would make psychologically if such children were taught to read in their own language first, a relatively easy matter in Spanish, and had a teacher who could explain things to them in Spanish. The learning of English as a second language could then become a joy and not a frustration.

Concerning these psychological factors LePage (1964:22) says that "Apart from innate intelligence the most important factor in determining how quickly a child learns is the attitude of all concerned—parents, teacher and child—towards the medium of instruction and the subject-matter."

Nida (1949:19) says that,

> it is impossible to overemphasize the psychological importance of the first step in learning to read. Those of us who are constantly surrounded by pictures and signs from our earliest childhood do not appreciate the problem of the illiterate native who has no comprehension of the significance of a symbolization such as letters imply.... Anyone who has had experience in teaching natives to read will recognize that the grasping of this essential value of symboiization is infinitely more easily taught if the symbolism reflects his own language rather than one which is unfamiliar, or perhaps only partially familiar to him.

We can only imagine how different the situation of the North American Indian would be today if the United States had used a policy of education first in the mother tongue and later in

English. "Margaret Mead has instanced the example of American Indians, whose capacity for dealing with the English language, particularly the written language, was well below their general intelligence. She attributes this to the fact that they had not written their own language" (UNESCO 1953a:41). From a strictly psychological point of view, the use of the vernacular is the choice in primary education.

Educational reasons

Closely tied to and overlapping the psychological reasons are the educational ones. Children have a freedom of expression and a participation in school activities when their mother tongue is used that is not possible when instruction is in a foreign tongue. They are able to associate their school work with their own ideas and interests, and it is much easier for them to keep their attention on the work in the classroom. If the teachers and students speak the same language, it is much easier for a teacher to be sure that the children understand and that they are actually learning.

A significant reason for using the vernacular centers around the very nature of the educational process, i.e., the nature of learning to read. Gray (1948:35–38) sets up four major stages of reading: perceiving or recognizing words, grasping or comprehending meanings, reacting to the ideas acquired, and integrating what has been read. The carrying out of such an ideal reading program could only be done in a language well known by the student.

In beginning reading the process is association of written symbols with oral symbols. If children are familiar with the spoken form, then reading becomes a process of learning the symbols for the spoken forms which are meaningful to them. If reading is taught in a foreign language, children are no longer making this simple association. Since the spoken form has no meaning for them, they must also try to attach meaning to both the written and the spoken form. Otherwise they merely become parrots, associating the oral form with the written form but with no meaning content for either form. Learning to read in a foreign language may become nonsense to children because the spoken form related to the symbols has no meaning.

Learning to read and learning a language are two different educational processes. Teaching reading in a foreign language is confusing these two processes, and the unfortunate part is that often the teacher does not realize that this confusion exists. As O'Kelly (1961:24) states from her experience in Cameroun, "Considerable experience is required to teach literacy successfully in a foreign language."

Reading is not the only field in which the use of a language other than the vernacular leads to confusion for the student. In arithmetic it is very difficult to teach the concepts of numerical process when the students do not have a grasp of the meanings behind the words being used. By using the vernacular, the concepts can be easily understood, and the student grasps arithmetic at a normal rate, rather than being frustrated by having language learning mixed in with arithmetic learning.

From the point of view of educational processes, the use of the vernacular in the learning process is, in most situations, superior to the use of a foreign language.

Linguistic reasons

As pointed out above, linguistic reasons for the use of the prestige language have to do primarily with multilingualism and with the lack of scientific and technical vocabulary in the vernacular language. From the point of view of the vernacular, the linguistic reasons for its use are of quite a different nature, being concerned primarily with orthographies, linguistic interference between the two phonetic systems, and the influence of this interference on the ease or difficulty of learning to read.

In reference to general language learning, Weinreich (1953: 18–19) classifies "phonic interference" into four types: (1) underdifferentiation of phonemes, (2) overdifferentiation of phonemes, (3) reinterpretation of distinctions, and (4) phone substitution. In further discussion of these, Piroch (1955b:81), reviewing Weinreich, says:

> Under-differentiation of phonemes means to the teacher that the learner of the new language uses his native one phoneme where the foreign language has more than one.... Over-differentiation of phonemes means that the learner uses two or more of his native phonemes where the foreign language has only one.... Phone substitution means that the learner substitutes his native phoneme for a foreign language phoneme whose phonetic realization is more or less similar. Reinterpretation of distinctions does not add anything to the other concepts, which in my view cover it.

The discussion cited above deals with language learning in general, but is very basic to seeing the problems that arise in teaching reading in a foreign language. All of these types of interference will cause confusion for the child, even when the language being used is written in a near-phonemic alphabet. Weinreich (1953:1) also states, "The greater the difference between the systems, i.e., the more numerous the mutually exclusive forms and patterns in each, the greater the learning problem and the potential area of interference."

If children are taught first in the mother tongue, with an alphabet that is more or less equivalent to their phonological system, they will learn to expect a symbol to correspond to a significant difference in pronunciation. Thus, they will have learned easily a basic tool of reading and writing. Once the child has acquired this tool, then "... when he finds new symbols in the major language, he expects to learn new pronunciations for them. Learning the pronunciation contrasts is not easy, since it involves learning a new phonemic system, but at least the learner is not hindered by the bad habit of ignoring distinctions" (Gudschinsky 1959:68).

Since it is the phonological system which is concerned most directly with the reading process, it is of greatest significance in the question of which language to use in primary education. However, the other structures of the two languages also need to be considered as well. Reading is more than correlating sounds to symbols; it includes comprehension and expression of ideas. Reading in a foreign language leads to an idea of reading as a purely mechanical act without thought or comprehension. By learning in the vernacular first, children learn that reading has meaning and that ideas are involved. When they begin reading a second language, they will then be looking for the meaning and trying to comprehend what they read.

Another linguistic problem is dialects and how far to go in setting up vernacular education in each dialect. Gudschinsky (1959:70) suggests that,

> In languages without a written tradition, dialect difference may be a special problem in the preparation of primers and reading material. If the dialects are very divergent, it is probably better to make separate sets of primers for the beginners even though the same advanced literature is to be used in both dialects. This avoids initial confusion which may discourage the beginning pupil or delay his learning.

In the matter of orthography, the alphabet for the native language should be as simple as possible to make initial learning easy. Once the process of reading has been learned, more complicated orthographies are not as formidable as they would be in the beginning stages of learning. If the orthography of the vernacular is patterned after that of the prestige language, it will be a help in learning that language later.

Socioeconomic reasons

In most cases the prestige language will have the greatest economic and social advantage for the students. The argument for the vernacular is not that it will bring social or economic advantage, but rather, that it is the best means of ensuring a satisfactory adjustment; that is, it is a bridge to the prestige language. There is a generation gap if there is too rapid an acculturation process. This can often be alleviated by use of the vernacular preceding the prestige language in education, thus avoiding the forcing of rapid acculturation.

In an era of rapid technological and social change, there are many problems which arise as the sanctions of the past lose their authority and as the system of values which has stabilized the society is questioned by its members. If, along with this change, a drastic language change is also demanded, the speed may be so extreme that it brings about a chaotic state in the society and serious emotional disturbances in individuals. Means must then be found to avoid forcing the process. (For a discussion of the inevitability of change, see chapter 22.)

In studying what he calls "incipient bilingualism" among the Huave Indians of Mexico in their initial acceptance of Spanish-Mexican culture, Diebold (1961:100) says that there are two principal sociological results that can follow from language contact in a given speech community. "First, there may be indefinitely prolonged bilingualism, such that both languages continue to be learned, although perhaps in determinably different contexts and functions. Alternatively, one of the two languages may fall into disuse, such that fewer and fewer and finally no new speakers learn it." A use of the vernacular in education would tend to cause the first situation to exist longer and not to precipitate the second. This slowing down of the acculturation would lessen the stress on the society and make for a smoother adjustment.

Political reasons

One of the primary reasons given for the use of the prestige language was political. This seems, however, to be contrary to actual experience. The UNESCO (1953a:29) report pointed this out in saying that, "The interests of a nation are better served by the maximum effectiveness of its schools rather than by premature use of a medium not easily understood and perhaps limited in its use to the confines of the school."

Certainly, if the real desire of the state is the integration of vernacular-speaking people into the society and their learning of the national language, the use of the vernacular is the most effective means of doing so. It may seem contradictory to say that the use of the vernacular speeds up the learning of the prestige language while at the same time saying that it will avoid a precipitous acculturation process. However, the use of the vernacular, while it does facilitate the learning of the national language, also tends to prevent serious acculturation problems by keeping both languages in use over a longer period of time, thus giving a smoother adjustment to the overall change process.

Financial reasons

In the discussion above, financial problems were given as a major reason for using the prestige language. However, money spent in education in the prestige language may fail to accomplish its purpose in that monolingual vernacular speakers are those who most often drop out of school without having actually learned to read. The investment, then, does not result in literacy. In a vernacular-oriented program, the same money brings better results in terms of literacy. There are fewer dropouts and thus more positive results. Even though the initial cost for vernacular programs may be more, in terms of final results, the total investment brings greater profit. Kitchen (1931:18), in his evaluation of the problems in Bengal, stated that because the Santal children got discouraged with Bengali, the number of dropouts resulted in a waste of money as well as effort.

The financial problem becomes more acute in countries where there are many small groups and where the problem of preparing primer material in the various languages is encountered. However, countries like Peru, which have actually done this, have found their money well spent in terms of numbers of literate people. It is not a waste to put money into vernacular education programs.

The most extensive program of this kind was that of the USSR. In their intensive education program, which began in 1918, it was a stated part of the program that "where the prevailing language was not Russian, the pupils were to be taught in their native tongue" (Mazour 1951:384). In their literacy campaigns, they also used teachers from the local populations and trained them. Literature was published in the vernaculars. As Nida (1961:33) notes,

> few people have realized as the Russians have, the importance of the indigenous languages. The use of the many local languages within Russia during the last ten years of intensive literacy campaigns has revealed amazing literacy gains. In order to accomplish a record of change from a pre-1918 figure of some 33 percent literacy to a present 93 percent literacy, the use of the more than eighty indigenous languages of Russia has been an important factor.

Such an educational program was certainly a very expensive undertaking. But the final results in literacy and in learning the national language were accomplished in a relatively short time.

VERNACULAR LANGUAGES VERSUS SPANISH IN THE PERUVIAN JUNGLE SCHOOLS

In the early 1950s, as the Peruvian government considered its desire to bring literacy to the many language groups living in the large jungle area of the country, it had to consider the conflicting arguments presented here to decide if education should be conducted in Spanish or in the vernacular languages of the area or in both.

In 1952 the Peruvian government, in collaboration with SIL, began plans for an experimental bilingual school program for the jungle Indians. The strength of this program, which got under way in January 1953, has been in the fact that it did not choose between the vernacular and the prestige language, but rather set up a program in which each was used for specific roles. In this way the arguments on both sides could be synthesized to the advantage of both the vernacular speakers themselves and the nation as a whole. The details of this program are described in the chapters that follow. Before turning to these details, let us look at the way in which the advantages of using the vernacular and the advantage of using Spanish were brought together in the program. This will be discussed again from the point of view of each of the six factors previously outlined.

Psychological factors

The bilingual education program was set up in such a way that the vernacular was the primary language used in the first few years of school with a gradual move into Spanish during the course of the total primary education program. This meant that the students received the security of learning the Spanish language and belonging to the educated class without having to go through severe emotional adjustments when they came to school for the first time. They felt at home because the teacher spoke their vernacular language and was probably their relative. They were able to respond and to fit their new experiences into their own environment.

The generation problem was not acute because the students could share at home what they were learning in school. They could read to their parents and be understood. Parents were proud of their children when they learned to read. Many adults also attended these schools, and it was not uncommon in the early years to have a father and son or daughter in the same class.

The learning of Spanish was not an experience filled with fear, but rather just one of the many things the child was doing in school. In a relaxed situation, in which the teacher spoke the language of the child, the second language, Spanish, was learned without trauma. Learning Spanish in an emotionally favorable situation resulted in a positive attitude toward the national language, which was very important for students who later desired to continue with their education in Spanish.

Educational factors

The need for materials for the schools was taken care of by the preparation of a limited amount of material in the vernacular languages. As soon as the students reached a level of competence in Spanish sufficient to make the transfer, the regular Peruvian school books were used. The lack of technical and scientific terminology was not a problem because by the time the students had reached the level where they needed it, they were using Spanish and the teacher could explain new words to them in the vernacular.

The educational processes were not mixed; rather the child learned one thing at a time. The complications of teaching reading and a foreign language at the same time were eliminated. Students first learned to read and then to write in the vernacular. Later they applied this knowledge of reading to the new language, Spanish. But before they did so, they had been learning this new language orally. When they had sufficient vocabulary and could use the basic sentence structures of Spanish, they began to read and write in their new language. In arithmetic and social studies, they learned the concepts first, and then, when they understood them in the vernacular, they learned the Spanish terminology with which to talk about them. Through the bilingual approach, therefore, language learning and learning to read and write were kept separate.

Linguistic factor

The problems of multilingualism with which Peru had been confronted ever since becoming a nation were finally being overcome in the jungle. By using the vernaculars, the people in the various language groups were learning Spanish faster. Through the teacher-training course in which speakers of the various languages were brought together, there was an exchange of ideas and a unity of purpose that could never have come about if the groups had not been in contact with one another. On the other hand, the interaction between members of different cultures led to a respect for linguistic and cultural differences and a pride in one's own language and culture.

The problems of linguistic interference were minimized with the bilingual approach. By learning to read first in the vernacular, a much better adjustment was made to speaking and reading Spanish. This is illustrated by the contrast between the Aguaruna who first learned to read in Spanish monolingual schools and those who learned to read in bilingual schools. I personally know a number of Aguaruna men who went to

Spanish schools and learned to read and write in Spanish without first learning in Aguaruna. Even now, after years of practice, they cannot write, nor do they pronounce in their reading the distinctions between the Spanish *i* and *e* and the Spanish *o* and *u*. They have never learned to keep *m* and *b*, nor *n* and *d*, separate in Spanish, and they continually confuse *l* and *r*. Since each of these pairs is paralleled by one phoneme in Aguaruna, the Spanish distinction is not in their native phonological system. In reading Spanish, they pronounce both phonemes the same, and in writing, they use one or the other and often choose the wrong one.

Quite in contrast to this, the students in the bilingual schools, who learned to read and write first in Aguaruna and then later made the transfer to Spanish, read with a clear distinction between these Spanish sound pairs and have much less trouble in writing Spanish. Through their reading in the vernacular they have learned the principle of correlation of sound and symbol, and they have used this tool to focus on the necessity of hearing and reproducing the distinctions made in Spanish for each of these pairs.

Again using the Aguaruna for illustration, I have noticed that those who learned to read in Spanish first read mechanically and often stop at the end of the line in the middle of a thought, using pauses and intonation patterns which indicate that they have no concept of reading as a means to communicate ideas. Those who have learned in the vernacular and who have become accustomed to understand what they read carry this tool over into the second language as well, and try to group meaningful units, and stop at periods rather than ends of lines.

Socioeconomic factors

One of the socioeconomic reasons given for using the prestige language rather than the vernacular in primary education was economic advantage in obtaining jobs. The initial entrance into the Spanish language through the idiom in no way hinders attaining this ultimate goal. The student gains this tool, but the use of the vernacular first permits a slower and better adjustment into the Hispanic culture by those choosing to move into the second culture.

With education comes a new desire for economic equity. Knowledge of the real price of things made the jungle Indians very unhappy with the traders in the area who had overcharged and underpaid them in the past (see chapter 5). Naturally enough, they desired to be free of this injustice. Money came into the economy, and through the teachers, cooperatives were organized in some groups, making it possible for the Indians to run some of the unfair traders out of the tribal area. The Indians also became interested in planting cash crops such as rubber, cacao, and coffee, which were introduced by the teachers, who received instruction in agriculture as part of their training course. Students finishing the bilingual schools went on to study agriculture, commerce, mechanics, etc. Promising young men, who a few years ago would have left the tribal group, now stay in the tribe and become a part of the development which they see taking place. Some who had left have returned as they saw the new day of opportunity.

The schools have without doubt been an instrument of social and economic reform and of effective interchange with the national culture, with what, hopefully, has been a minimum of shock and frustration. This would have been impossible if only the prestige language had been used.

Financial factors

It is a fact that the Peruvian government has been putting a considerable amount of money into the teacher-training course, the preparation of materials in the vernacular languages, and in salaries for the bilingual teachers. But the government has received more for its money than it could ever have received with monolingual Spanish schools in the jungle. After a few years of bilingual education, more had been accomplished toward the integration of the jungle ethnic groups into the Peruvian system than had been accomplished in decades. The government continues to appropriate funds for bilingual education, indicating that it is not disappointed in the returns on its investment.

Political factors

The impact of the bilingual school program on the unity of the country has also been evident. The Indians gather from the various tribal groups for their training courses and interact with one another, study together, observe one another's customs and languages, and in many cases become close friends, all within an atmosphere of patriotism. As a result of this experience, the tribes of the jungle have come to feel, for the first time, that they are a part of a larger unit, the country of Peru. Through this interaction, they have also gained a tribal consciousness which is very healthy since it is fitted into a national setting.

The schools in the tribe, with their emphasis on patriotism, the use of the flag, singing of the national anthem, and the keeping of national holidays with instruction from the teacher as to their significance, have fostered a loyalty to Peru on the part of the jungle Indians. The teachers have received their official documents and thus are recognized as full citizens of the country.

Dr. Efraín Morote Best (1961:307), eminent Peruvian folklorist and educator, made the following comments after the first few years of bilingual education:

> It was, evidently, a revolutionary step from the educational and social point of view. An enormous barrier of inducement (to learn Spanish) is overcome and the native is given an opportunity, for the first time, to feel his worth as a human being and the value of the resources of his own culture.... The teachers, members of the societies of the jungle, use their own languages as the initial instrument of teaching, in order to teach the students Spanish, the language of the country, within a reasonable length of time.

As a result of the reports on the success of the program in

Peru, a recommendation was made by the Third Inter-American Indian Congress in La Paz, Bolivia, which translated into English reads: "To recommend to the Governments of the countries of America which have populations of indigenous jungle peoples, that they consider the experience of Peru concerning teaching in the vernacular language and with native teachers, in order that they may contemplate the possibility of applying this system" (Morote 1957:13).

In spite of the fact that governments have tried to use education in the prestige language as a way of forcing political unity, the Peruvian experiment has shown that bilingual education leads to faster and more stable results.

CONCLUSIONS

There are basically three alternatives that can be chosen by bilingual societies regarding language for educational purposes in the primary grades. They are (1) the use of the prestige language at all levels, (2) the use of the vernacular at all levels, and (3) the use of the vernacular in the beginning stages of learning, proceeding gradually and systematically to an acquisition of the prestige language.

Kitchen (1931:16), in his discussion of the problem in Bengal, quotes a Dr. West as having said, "the educationist has the choice of the language of the pupils, or the language of the knowledge to be imparted (the prestige language): and whichever he chooses, in leaving the other, he is bound to be wrong." Dr. West is quite right, but he does not suggest the third alternative, the use of both.

We believe that the best solution to the vernacular-versus-prestige-language problem is the third choice, the use of the vernacular in the first years of school to pave the way for the learning of the prestige language to be used in advanced education. In areas faced with the dual language problem, primary schools should be bilingual schools if they are to satisfy the needs of the individual student, the desires of the country for educational advance, and the healthy social integration of minority groups, while encouraging maintenance of the ethnic identity of each.

In bilingual primary education the vernacular should be used (1) to initiate the child into school life; (2) to teach the processes of reading, writing, and arithmetic; (3) as a tool for oral learning of the prestige language; (4) as a diglot in advanced materials in arithmetic and social studies so that the student can understand the concepts being taught in the prestige language; (5) by the teacher to make explanations of material being taught in the prestige language for the advanced classes which are using material in that language; and (6) for the writing of tribal histories, legends, poetry, ballads, and other vernacular literature that reflects the distinct tribal identity.

The prestige language should be used (1) as a second language which is introduced orally, (2) for reading and writing after the process has been learned in the vernacular, (3) as another system for talking about material learned in arithmetic and social studies, and (4) as a second language to be learned well through pedagogical materials containing explanations in the vernacular. The prestige language should thus be learned well enough so that the student is able to continue his advanced education in this medium.

By using both languages, each with its specific roles, the total process of primary education becomes meaningful to the individual students and to the Indian communities, and at the same time helps governments solve their multilingual problems.

During the twenty-five years in which the Peruvian experiment with bilingual education has been going on, there has been a gradual change in the attitude of many countries towards the use of the vernacular in primary education. A desire to maintain indigenous languages and cultures has made education in the vernacular more acceptable. Monolingual prestige-language education has been seen to destroy the native culture and language, whereas the use of the vernacular in primary education, particularly in a bilingual school program, has been seen to help maintain the vernacular and many aspects of the indigenous culture, and at the same time, bridge the gulf between the national and the indigenous societies.

Being convinced of the effectiveness of the bilingual schools of the jungle, Peru in 1972 declared itself a multilingual country, and an official national bilingual education policy was drawn up. On February 8, 1973, a Supreme Decree authorized bilingual education among the vernacular-speaking sectors of the population and also advocated conservation and promotion of the vernacular cultures and languages (see Appendix B).

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[illegible] 1964

Rough boards supported by poles serve as desks and benches under a thatched roof in a cane-walled Amuesha classroom (see chapter 2).

[illegible] 1972

Campa youngsters practice writing at the blackboard under the supervision of their bilingual schoolteacher, José Chávez (see chapter 2).

2

OVERVIEW OF THE PROGRAM OF BILINGUAL EDUCATION IN THE PERUVIAN JUNGLE

Mildred L. Larson,[1] Olive A. Shell, and Mary Ruth Wise

One of Peru's cultural riches is the variety of languages spoken within its borders, especially in the jungle and mountain areas. This very variety, however, presents great problems for projects related to literacy and Spanish learning. In order to handle the problem in the jungle, Peru has developed a program of bilingual education based on a philosophy which recognizes the potential of jungle Indians to participate in the life of the nation and to make a valuable contribution to its progress without losing their rich linguistic and cultural heritage.

For centuries, the numerous language groups of the Peruvian jungle were isolated from the mainstream of the nation's development by geographic as well as linguistic and cultural barriers. During the past twenty-five years, the picture has gradually changed. Through the bilingual school system thousands have become literate in both their native language and in Spanish, and have learned of the extent of their native land and of the existence and functioning of its government. They have learned of their own privileges and obligations with respect to that government, and they have become more aware of their own identity as ethnic groups and have developed a pride in their language and customs.

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[1] This article was compiled by Larson chiefly from the material found in Wise (1969) and in Shell (1970, 1971) (see Bibliography).

The bilingual education program was created by the Peruvian government in November 1952 (see Appendix A). Each succeeding government has endorsed and promoted the program, so that from a small beginning with eleven bilingual teachers in eleven communities, in six language groups, teaching approximately 270 pupils in the school year of 1953, the number in 1977 had grown to 320 teachers in 210 communities in 24 language groups (see map on p. xii), teaching approximately 12,000 pupils.[2]

The people the program reaches live in the broad expanse of rain forests in the eastern Andean foothills and the lowland jungle. From the Ecuadorian and Colombian borders on the north to Bolivia on the south, and from the Andes on the west to the Brazilian border on the east, they are found in small villages and isolated homes nestled in the tropical growth along the streams and rivers. They speak some sixty languages and dialects.[3] To reach these groups, so widely scattered geographically and with such diverse languages, has required a program unique in its approach and broad in its scope.

The basic principles of the program are: (1) the teachers are Indians who speak the native language of their students; (2) the students are first taught in their native language; and (3) the students then learn the national language in order to interact with fellow countrymen from other groups and to play an active, intelligent role in the affairs of their country.

The bilingual education program was begun because of the problems involved in establishing Spanish schools among the tribal groups in the jungle. One of the specific problems which results when a Spanish school is established is that the teacher cannot communicate with the students who may not know a word of Spanish when they enter school. For example, the Amuesha group is located close enough to the outside world that Spanish-speaking teachers were assigned in three or four cases to teach in one-room schools—usually with both Amuesha and Spanish speakers enrolled. The Amuesha children entered knowing little or no Spanish and sometimes spent years in school before finishing first grade because they first had to try to understand what the teacher was saying. As a result of the communication problem the situation seemed so hopeless that the Amuesha children in one such school were sent out to work the teacher's garden most of the day, while the Spanish-speaking children had classes.

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[2] There has, of course, been some changeover of personnel and school locations. During the twenty-five year period, a total of twenty-eight language groups have been served by bilingual schools.

[3] For a detailed enumeration of the ethnic groups of the Peruvian Amazonia, see Ribeiro and Wise (1978). Of the sixty-three groups identified as still existing, a bilingual education program would be feasible in about forty. Some groups, such as the Resigaro, are so few in number that they have integrated with other groups, although they still retain their own language. Others, such as the Cocama, have become so completely integrated into the surrounding mestizo culture that the children and young people do not speak the vernacular.

In addition, isolation and lack of conveniences are deterrents to recruiting teachers. There are many tribal locations where the adjustment problems for Spanish-speaking teachers would be severe. Not only might teachers from outside the language group be looked upon with suspicion by the villagers, but isolation in a jungle setting might subject teachers to severe culture shock unless they were specially trained and highly motivated for the task.

Teaching reading for comprehension is also a problem in a Spanish school for tribal groups. While monolingual Indian children are learning a phrase here and there of Spanish, they are also struggling to learn Spanish syllables by rote, sounding out the words. They may learn to read words by sounding out the syllables, but without the slightest notion of the content of what they have read.

On the other hand, when students are taught first to read and write in their mother tongue, they read from the first about things meaningful to them in their everyday life—words, simple phrases, and sentences, for example, which they use while watching the baby for their mother when she goes to the field to dig manioc roots or to the river to wash clothes. Consequently, the teacher is able to work toward reading for comprehension from the very first lessons; thus the concept of reading is established.

The bilingual education program was established in order to meet these practical problems: communication between teacher and students, finding teachers able to fit in with the local culture, and effecting a literacy program in which a student would learn to read with comprehension both for pleasure and for information.

PREREQUISITES

For such a program there are three prerequisites: (1) the spoken languages of the Indians must become written languages as well, (2) primers and textbooks must be prepared in those languages, and (3) Indians from each language group must be trained as teachers. These prospective teachers must have certain natural ability and a knowledge of both their native language and Spanish.

In order to meet the first two prerequisites, the government of Peru asked for the assistance of the Summer Institute of Linguistics (henceforth abbreviated to SIL). SIL's field linguists were to make phonological analyses of the languages and to formulate suitable alphabets. In addition, they were asked to prepare school materials in the native languages to be used in the village schools. This linguistic and educational help was necessary because each language has its own structure and the methods used in the reading material needed to vary to fit the language (see Part IV of this volume).

The third prerequisite presented some problems: (1) obtaining candidates with natural ability and with a knowledge of both their native language and Spanish; (2) making them literate and teaching them basic concepts of arithmetic, social studies, etc.; and (3) training them to be teachers.

In communities where there had been little or no contact with Spanish speakers, the Spanish language was unknown and thus could not be learned adequately in the home community. In these cases, the field linguists taught the first teacher candidates until they became literate in their own language. Then those same skills could be applied easily to the reading and writing of Spanish. Subsequently, the candidates learned

Spanish while attending elementary school courses taught in Spanish by Peruvian professors at the Yarinacocha center. (In a few language groups located along the main rivers, some candidates were found who were already literate in Spanish, having attended elementary schools where the teaching was in Spanish.)

After bilingual schools had been functioning in the communities for several years, the schools themselves produced new teacher candidates able to take positions in their own or other communities of the same language group. A large percentage of the teachers now in the system are "second generation" bilingual teachers, having been taught by bilingual teachers. In groups where linguistic investigation was begun more recently, the laborious process previously outlined for preparing candidates is still necessary.

FORMAL TRAINING

The formal training by which the candidates become teachers is given in a course set up and staffed by the Ministry of Education (details are given in chapter 6). It is held during the major part of the annual school vacation, January through March, at the Yarinacocha center, which is quite centrally located in relation to the language areas. Candidates entering for the first time, and bilingual teachers returning for further training, come together from many areas and language groups. Returning teachers, who have been receiving a salary from the government, pay for their own transportation. For some, this trip involves hours of flying time; for others, days by canoe or raft; and for a few, road transportation. The teachers also come prepared to pay for their food, books, medicine, and other expenses. Candidates, who haven't received a salary yet, are helped in their expenses, sometimes by the government, sometimes by interested friends.

The accommodations in Yarinacocha have gradually grown since 1953 from one thatch-roofed, floorless classroom and a few dwelling houses in a jungle clearing to a campus of classrooms, offices, dining room, dormitories, and housing units sufficient to accommodate 150 or more people.

The director and professors for the training course have been appointed and paid by the Ministry of Education. The staff has often been assisted and augmented by the field linguists, who have also assisted in the supervision of evening study halls in order to clarify any lesson with which students had difficulty because they did not understand the Spanish spoken in the classroom. During the day, when invited to do so, linguists continue to teach pedagogy courses related specifically to vernacular materials.

There are two areas of emphasis in the training program: (1) raising the academic level of the candidates and returning bilingual teachers and (2) providing training in pedagogy. (These matters are discussed in chapter 6.) In general, courses in Spanish as a second language are geared to the needs of the students.

In addition to academic training, all students have been given training in health principles and the diagnosis and treatment of simple and common ailments. When the teachers receive sufficient training, they are permitted and encouraged to take back some basic medicines to administer as needed in their communities. The health classes are taught by a doctor or nurse from the SIL clinic in Yarinacocha.

THE JUNGLE SCHOOLS

After the teacher-training course, both the newly appointed and experienced teachers return to their jungle villages, taking with them a year's supply of books. Books have frequently been paid for by the teachers themselves at prices subsidized by the government, although candidates have often received books for their first year of teaching either free or at half price. At other times, textbooks have been provided free, but notebooks and other supplies have been purchased by the teachers.

Returning teachers often carried among their supplies simple medicines, a football, a shotgun and cartridges, or perhaps a sewing machine; and, for those involved in economic development projects, a calf or two, for which pasture had already been prepared by the teacher and the community.

Before the work of the new school year begins, the building has to be made ready. The schools are constructed from local materials: palm-leaf roofs, palm-bark floors (if there is a floor), and bamboo or palm-bark walls on which blackboards and charts can be placed. A few schools have aluminum or zinc roofs, and the furniture is usually made locally. Where sawed boards are not available, palm bark, the sides of old canoes, or boards hacked by axe and machete from logs make satisfactory table and bench tops. Blackboards are made from masonite with a coat or two of blackboard paint. The size and number partly depends on the means of transportation, since the masonite has to be brought in from the outside.

Once the school is set up, the teacher begins classes. The new pupils learn to regulate their activities by the clock and the teacher's whistle. They learn that the queer black marks on the pages of the books represent familiar words, and so they begin to read and solve arithmetic problems.

From these modest beginnings some fine schools have evolved which have produced well-trained candidates for teacher training or other courses who are able in turn to help their communities.

SUPERVISION

The best of workmen with the best intentions require direction and supervision. In the early years of the bilingual school program, the field linguists were asked by the government to be responsible for the local supervision of the village schools. In 1956 a Peruvian educator, who had served as director of the teacher training course, was appointed Coordinator of Bilingual Education in the jungle, and served for two years. He was, however, not able to visit all the teachers in their communities, and the linguists continued to help him in many areas. Over the years, various Peruvian educators have held the same post and have contributed much to the development of the schools.

These men have continually requested the help of the linguists living in the tribal areas.

In the larger language groups, the job soon became too big for one coordinator and the linguists to handle. The answer to the problem of supervision seemed to lie in the Indians themselves. Through the years, some very capable teachers had developed. Several full-time supervisors and some part-time supervisors were appointed from among them to work with teachers of their individual language groups. By 1970 these Indian supervisors were helping to raise the level of efficiency of the schools substantially. They reported to the Coordinator, who could in this way keep in touch with the outlying communities (for more detail on supervision, see chapter 8).

In more recent years, the Ministry of Education decentralized the national school system, and several educational zones were established with a number of *núcleos* (districts) in each. The bilingual schools were then supervised by the zone and *núcleo* offices, rather than by the Coordinator of Bilingual Education. The program being discussed in this book is that of bilingual education as it was when centralized; however, changes effected by the decentralization process will be noted when relevant to the discussion.

RESULTS

Because of these bilingual schools, thousands of jungle Indians have become literate. The schools have given basic education to hundreds of children and to scores of youths who subsequently have attended the teacher-training courses and become teachers. Others have attended various occupational courses to learn agriculture, carpentry, mechanics, elementary commerce, and home economic skills, and a significant number have become involved in health promotion and the treatment of simple illnesses. Most of these are in turn serving their communities.

Perhaps one of the most significant results is the improved morale of the minority groups, who have realized that they are a part of the population in whom their government is interested. They are not forgotten but can take their place as recognized citizens of their country. The realization that their language and culture are accepted and respected by the government, and that their language is an accepted vehicle for written communication, has definitely improved the self-image of jungle Indians.

The unique and progressive effort of the Peruvian government to reach out to the once-neglected jungle Indians and bring them into their rightful place as citizens participating in their country's welfare is gradually bearing fruit and reaching to the most isolated areas of the country.

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3

MULTILINGUALISM AND PERU[1]

Alberto Escobar

News from abroad often calls our attention to disturbing situations—student demonstrations in Belgium because of the different languages used in the country and problems concerning the use of, and access to, university libraries; political ferment in Quebec and the overthrow of norms established years before to determine the relations between English and French speakers in Canada; debates throughout contemporary Spain concerning the so-called regional languages (Catalan, Basque, Gallego-Portuguese) and Spanish (to mention only some cases which have attracted our interest in recent months from different parts of the world). In each of these situations, we suddenly realize that the existence of more than one language brings into question—in various parts of the globe—generally accepted and basically similar opinions concerning language uniformity.

For a long time our thinking has fallen into a pattern where we assume that the normal, customary linguistic situation is *monolingualism*. At the same time, we have supposed that one's own language is always the most adequate, and we justify this opinion on the basis of a variety of facts which generally can be explained in the light of history and the evolution of societies. In fact, monolingualism appears so natural that it is very easy for us to imagine a certain correspondence between countries and languages: Great Britain is almost synonymous with English, as is the United States; for Spain we would designate Castilian or Spanish; for Italy, Italian; for France, French; for the USSR, Russian; and we even suppose that in China, Chinese would, of course, be spoken as only one language. This picture, so clearly and symmetrically drawn is nevertheless inaccurate. In every one of the countries just mentioned, there are groups that speak languages other than the one which is best known and which we conventionally consider the language of the country. In some of these countries, such as the USSR or China, it is not a matter of an alternative between two or three languages but rather among tens or hundreds of them.

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THE MOTHER TONGUE

Any one of the above examples would be sufficient to prove that political boundaries do not necessarily coincide with linguistic boundaries. Also, whatever the context might be—human, geographic, or cultural—all speakers assume that their *mother tongue*, their first language, is the most natural one. Additionally they also believe that the accent, or intonation, they use is part and parcel of the language. So, when one examines languages which are spoken within a large area or by a great number of people, even when it is the same language (e.g., the Spanish spoken in different countries of Hispanic America), one finds that each speaker is convinced that (1) he does not have an accent and (2) someone whose speech sounds strange and unusual to him does have an accent. The truth is, of course, that we all have an accent but it is something we do not hear in our own speech but do hear in that of our neighbor who speaks a different variety of our common language.

The question of language, then, is not as simple as one might suppose. Actually, with the obvious exception of the disadvantaged, every human being is capable of speech. Each has the innate ability to speak at least one language, and, as experience proves, countless numbers of people speak more than one. Furthermore, it is interesting to note that no one learns a language in absolute isolation since language is acquired in the family group. It is not strange, then, that we use such terms as *mother tongue* or *first language* since they refer to the language acquired in childhood. This type of cultural phenomenon is never the result of one, two or three persons. Rather, it is the product of an accumulation of experiences over a long period of time and over many generations. Like all of culture, it is the result of the activity of all who participate in it.

MULTILINGUALISM

For a long time, the term *bilingualism* was used to refer only to individuals: that is, a *bilingual* person was one who mastered one language (the mother tongue) and later learned another language (the *second language*). This way of thinking emphasizes the contrast between the first language, or mother tongue, which children acquire in the natural process of socialization as a member of the cultural group into which they are born and raised, and the second languages which conceivably they might learn in the future. Unlike the mother tongue, mastery of these other languages is often incomplete, and in teaching them, tests and standards are established in order to determine the degree to which speakers control each of the languages they use.

As a greater awareness has developed concerning real-life conditions of whole populations and of specific groups of people, the emphasis has turned from the study of *individual bilingualism* to the study of what might be termed *collective bilingualism;* that is, to the study of societies within which various languages are used. In these cases, we prefer to use the term *multilingualism* and emphasize that it refers to groups in which, for example, one part of the population masters language A, another masters language B, and still another segment is able to express itself both in language A and in language B. In a situation of this type, it is obvious that only the third group is bilingual, although the individual degree of mastery of both languages might differ within the group. What is distinctive about such a situation is that the different

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languages and their speakers coexist even though one of the languages often becomes the *common language*, i.e., the one that permits communication, or claims to be the means of communication, for all the members of the community.

COMMON LANGUAGE AND SOCIETY

One of the typical debates on this subject stems from differing viewpoints based on studies undertaken with a variety of theoretical premises. Some feel that the importance of the common language justifies a linguistic plan that should be carried out even though it may prohibit or stigmatize the other languages prevalent in the area. (These languages may be spoken by fewer people than the general language or they may be spoken by more people, but are limited to certain areas or social classes because of their lack of prestige, their lack of an orthography, and their lack of a literary tradition, or because they are used by underprivileged segments of the population.)

Another point of view recognizes the undeniable value of the general or common language, but maintains that there is no reason why it should be the only language used or why the other languages used in the community should not develop and spread even though they may not be used by the same number of people, or in as many situations, as the common language.

Today there is much evidence that gives credence to the idea that selecting one alternative or the other implies simultaneously making a decision that carries with it a conceptualization of the society being studied. Furthermore, such a selection implies a projection, a vision, of the ultimate design toward which the nation directs its development. Thus, this decision entails more than simply choosing between alternatives that concern only linguists, educators, and educational planning experts. It is actually a choice between a society incapable of effective internal communication and an integrated nation. If languages are arranged in a hierarchical order of importance, the same applies to their speakers and their cultures. And hence (as Jorge Basadre expressed it a few decades ago) the divorce between the "legal country" and the "true country" is made more acute. The price of selecting only one language is that, at the cultural and linguistic communication level, it becomes possible for one segment of society to dominate the others. And more often than not, the language chosen turns out to be the one that favors the rights of the colonizer. Consequently, by ignoring the changes which history brings to societies and their members, a kind of internal colonialism results from the lack of verbal and cultural communication. It thus becomes impossible for the speakers of the languages discriminated against to identify with the values and objectives of the national society in which they do not have a share.

NATION, STATE, AND LANGUAGE

The second option presents us with the complicated task of using a common language to unite a country with many languages while stressing the value of the regional or vernacular languages. This course of action attempts to strengthen and expand a feeling of identity, not only on the basis of an understanding of the *state* but of a feeling of belonging to a *nation*.

From the psychosociological, pedagogical, and sociolinguistic viewpoints, this alternative turns out to be the most applicable to the situation in the Andes. That is, it is the best alternative in the countries in which modern societies have emerged from the interaction of an originally European language and culture with local languages and cultures which have a long history and are identified with a highly developed civilization. This, however, does not mean that the road will be easy or free of obstacles and errors, but it does imply a very clear understanding of the pluricultural and multilingual character of our societies and the role that different languages play in the choice between what is called a structure of internal dominance and a democratic structure of the national societies. From our point of view, multilingualism will rectify the long and erroneous road the Republic of Peru traveled when it did not resolve the problem of communication among all elements in its society and did not unite as a homogeneous nation, proud of the heritage received from its ancestors and assured of its future.

THE HISTORY OF MULTILINGUALISM IN PERU

We will now examine in more detail the possibilities for multilingualism in Peru. In a book which has become a classic (Escobar 1972) a group of specialists examined, from various but complementary points of view, a range of topics connected with the history of the country, descriptive aspects of the languages spoken in Peru, and a variety of difficulties related not only to education but to the collective economic development of the country and to its diverse societies.

Quechua in Peru

The first question that arises reminds us that in the area now known as Peru various languages have always existed and that various groups of people have been differentiated by these languages. In fact, centuries before the founding of the Inca Empire (between A.D. 500 and 1000), developments had already taken place that determined—as Alfredo Torero demonstrated—the simultaneous existence of three great linguistic families, *Proto-Quechua*, *Proto-Arú* (Aymara), and *Proto-Puquina*. These names refer to very ancient stages of languages which are sometimes known by the same names in modern times, i.e., *Quechua* and *Aymara*, or by less familiar names such as *Cauqui* or *Jacaro*. An exception is the *Puquina* language, which is now considered to be extinct and is known only by the historical records concerning it and by linguistic reconstruction.

What is tradionally called the external history of languages is actually the relationship between their development and the history and destiny of their speakers. Consequently, we should take into account the fact that the growth and expansion of the Quechua group of languages, the reallocation of the Aymara to the high plateau, and the persistence of islands of *Proto-Quechua* in the highlands of Yauyos bring to light both aspects of linguistic history and of the social, economic, and cultural history of the inhabitants of ancient Peru.

What emerges from the above discussion is that multilingualism in Peru is not a phenomenon that originated with the arrival of the Spaniards; rather it preceded their coming and existed even prior to the founding of the Inca Empire and the expansion (approximately during the thirteenth century) of Quechua from Chinchay to Cuzco. Indeed, Peru was so multilingual that in 1575 Viceroy Toledo designated González Holguín as the official translator, since he was fluent in the three general languages—Quechua, Aymara, and Puquina—spoken by native citizens of the kingdom. (As mentioned previously, Quechua and Aymara are still spoken, along with Spanish, in Peru today.)

SPANISH, LANGUAGE OF THE COLONIZER

The arrival of the Spaniards brought about changes in the Inca Empire, or Tahuantinsuyo,[2] as it was known. These changes, of course, could not be limited to the politico-economic aspect but necessarily included changes in the cultural structure as well. In the course of these changes, the aboriginal languages lost their prestige to the language of the European colonizer and later, along with everything considered idolatrous, they were prohibited and their speakers persecuted. Thus, the sudden introduction of Spanish into the world of the Incas created a situation consonant with colonial social structure, with Spanish, the language of the conqueror on one side and all the languages of Amerindian origin, the languages of the conquered, on the other side.

This redefinition of the roles and the reassignment of ranks to languages on the basis of usage and social groupings in the new context offers a clear picture of the process followed by our society since the sixteenth century. It also explains why the native languages, as well as the traditional Andean culture, have continued to exist, primarily hidden away in rural areas, particularly in the central and southern highlands of Peru. In these areas the percentage of the population who speak the vernacular, are bilingual, or are illiterate, is much higher than the national average. In other words, there is a much higher ratio of vernacular speakers to Spanish speakers in these areas than in the rest of Peru. This demonstrates the need for considerable care and caution in the interpretation of statistical data if one does not wish to distort the true picture of Peruvian multilingualism.

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[2] *Tahuantinsuyo* was the name given to the Inca empire, which consisted of four great geographic regions called *suyos*. The capital of the empire was in Cuzco, Peru.

Multilingual inheritance

Two points remain which I consider important:

- The situation in Amazonia actually stems from a different historical basis and from an extremely complicated cultural-linguistic background in which countless elements intersect. Some day the pieces will come together, and the presence of man in this hemisphere will be explained. But for now one can only speculate about these questions and about possible relationships between the European world and ancient Peru, since our knowledge remains limited (Shell 1959; 1963–70).
- As a result of the historical process by which Peru has become a modern nation, we have inherited a multilingual situation in which the old complementary relationships between regional languages and cultures and the language which has the greatest range of use have been substituted for a new relationship. Over a period of more than three centuries, Spanish has become identified as the common or general language, and the other languages used in the country, especially Quechua and Aymara, have been relegated to a role which corresponds to the deprived status given to their speakers following the encounter of the Hispanic world with the aboriginal world.

Here again, we see that the question of multilingualism is intricately related to all the aspects of a society in which different languages and peoples coexist, differentiated by language use and by cultural values, as well as by the future configurations which they conceive for their society or country.

QUECHUA AND EDUCATION

The declaration of Quechua as an official language has not only literal significance but indicates a desire to establish new linguistic, cultural, and social relationships between the most westernized, urban segment of our societies and the less westernized, more rural groups. Although the law has been promulgated, the complexity of its implementation and the normal delays necessitated by finding solutions to the problems of the bilingual and monolingual groups mean that for now this measure tends to strengthen the role of Spanish as the common language. Nevertheless, it is a result of the desire to break down barriers caused by lack of communication and is in harmony with the General Education Law. Designating Quechua as an official language is basically one aspect of linguistic and cultural planning which tends to promote nationalism and reemphasize the value of the native languages and cultures (cf. Escobar, Matos Mar, and Alberti 1975).

CONCLUSION

In summary, the future of a multilingual society like Peru's and many others that exist in the world today presents an open challenge to the capabilities of those committed not only to transforming the means of communication in pluricultural and multilingual communities, but also to seeing that these communities attain their own distinctive unity—one which would set them apart as nations bonded together by a common destiny. In this respect, multilingualism is still a challenge to the design of our future and to our ability to build one nation enriched by its diversity of languages and cultures yet joined together by Spanish as the common language to afford the widest range of internal and external communication.

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4

SOME ANTHROPOLOGICAL CONSIDERATIONS CONCERNING BILINGUAL EDUCATION[1]

Alejandro Ortiz Rescaniere

The invention of writing has gradually made it possible for man to perceive reality primarily through the sense of sight. In the Western world some of the finest art and most profound knowledge are communicated to us by means of writing. In an intensive manner, peculiar to the Western world, artistic and scientific writing transmit a view of reality which results in the transformation of that reality.

Hearing, taste, and touch, which are essential means of cognition and of communication in traditional societies, tend to be used less than the sense of sight in modern civilization. Norms, values, and knowledge in our society are determined more and more by the fixed yet dynamic universe of writing and by the sometimes unfortunate combination of written literature with movies and television.

In order to understand the Western world, one must understand, therefore, that it is dominated by the visual. One may enter this universe with confidence through the gateway of sight, i.e., reading, without the stress which one would expect in commercial and political interchange between a culture dominated by the visual and one dominated by a sense of touch and fluid oral communication. Stress is created when the peoples who have been dominated do not understand the central force of the Western world: writing.

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[1] Much of this article appeared under the title "Lenguas Aborígenes y Educación Nacional" in *Educación: La revista del maestro peruano* 1:2. 50–52 (October 1970).

It is therefore important that traditionally illiterate groups learn to write. In fact, we believe that written communication is fundamental to a just relationship between different peoples. This is a reality which Peruvian aborigines cannot escape: they cannot even initiate a just and fair dialogue with the governing civilization if they do not possess this weapon, the most powerful one in the Western world.

Acquisition and mastery of written communication is essential, with learning the national language a related but secondary problem. If speakers of vernacular languages learn the function of writing and are able to use it to initiate a dialogue with the Western world, an important step will have been taken by all concerned. Use of the national language can be a negative element in the process. If a person is putting forth tremendous effort to pass from the *audio* world to a *visual* world and is *simultaneously* confronted with the complementary task of acquiring one more system, a foreign language, he will be hindered in his task by the necessity of paying attention to two things at once. That is, the attention being given to language learning ought to be concentrated on the acquisition of writing.

Many Third World governments have understood this and have developed bilingual education programs. In Peru, the Ministry of Education, in cooperation with SIL, has put forth a tremendous effort in the past twenty-five years to make it possible for numerous jungle and mountain communities to concentrate on the task of learning to read and write. Initial instruction is done in the mother tongue of the student, opening up the possibility of undertaking a second task: learning the national language. It is recognized, and has been sufficiently proved, that in countries where this type of program has not been applied, both learning to handle written material and learning the national language have been slower and less effective.

Apart from the fundamental reason already stated, bilingual education—learning to read and write in one's mother tongue without the obstacle of simultaneously learning these skills in a second language—offers other benefits which we would like to outline within the Peruvian framework.

ABORIGINAL LANGUAGES AND NATIONAL EDUCATION

The geographic areas of Peru where there is a high rate of illiteracy tend to coincide with the areas where the official language is not spoken as the mother tongue. In other words, the schools have had very limited impact on the populace that speaks little Spanish. In order to launch a new effort in literacy and educational reform, it is necessary to examine the reasons for such a situation. Why does the school tend to fulfill its goals better in areas of urban influence, where Spanish is traditionally spoken?

Except for a few pilot projects being carried out at the moment, the educational policy in Peru is to try to use Spanish exclusively in education. From the pedagogical point of view, this position creates a situation of unequal opportunity in which pupils whose mother tongue is not the official one must make a double effort: they must not only learn the new concepts being taught in the school but they must learn them in a new language.

At the same time that the present system of education insists that every student learn to express himself in Spanish, it pressures him to discontinue speaking his mother tongue. Even though some of the better-oriented teachers realize that the vernacular language could continue to be spoken along with Spanish, the whole social context and the very purpose of the school itself appear to deny such a possibility.

The school, then, appears to the students to be a threatening institution determined to pull them up by the roots from their cultural environment. Those who are able to reject their mother tongue and their culture with a minimum of conflict will find that they have an easier time in school. The pupils, as well as their parents, see the school as an alchemist's pot, able to change the basic personality of those who submit to its rigors.

The attitude one should take with regard to this change is problematic. On the one hand, one would desire the change insofar as it represents a possibility for a life of less hardship, but at the same time, it is to be feared as a threat to one's very personality. From the latter point of view, the principal defect of education in Peru, as it has traditionally functioned, has been that it tacitly negates the use of the aboriginal languages as an expression of culture. This, of course, also implies negation of the aboriginal cultures themselves; and denying the students their language and culture is the first step towards an education which is disconnected from reality in a thousand ways and favors memorization rather than creative thinking. Such education does not promote the formation of a unique national personality.

And so the dilemma: the direction Peru takes to solve this dilemma will have far-reaching consequences in the future. We could try to gain homogeneity by imitating the Western world and renouncing our own unique personality, or we could claim the status of a more diversified nation which has originality and be all the richer for it.

Peru will be strong as a nation only if we opt for the second possibility—if the transformation of structures is accompanied by the determination to be spiritually independent and culturally unique. Only thus will we be able to contribute something to humanity. It is not a question of narrow nationalism. Not only for our benefit but also for the good of mankind we ought to preserve the milleniums of experience accumulated in the languages and cultures of the Andes and Amazonia. Since the beginning of the colonial period the Quechua, the Aymara, and the Huanca have been held in contempt and humiliation. They have almost been convinced that their culture is to be despised. We cannot continue to commit this unpardonable error of contributing to the extermination of their culture and their language.

The following are some of the most common arguments given against the teaching of the aboriginal languages:

- *Teaching of the aboriginal language could be a threat to national unity.* Peru represents a diversity of badly-integrated cultural traditions. The Hispanic tradition flourishes in the cities, while the native traditions are hidden away in the rural areas. Up to now, the school system has denied our cultural differences and clashes, thinking that thereby the problem would be resolved. Actually, abolishing the students' language and culture from the classrooms has impoverished the schools and has made it more difficult for them to fulfill their objectives.

By making the school the agent which forces a second language on students who speak only the non-Spanish mother tongue, an unnecessary gap is created between the school and the children who speak the suppressed language. At the same time, a psychological basis is established which favors the survival of exploitative structures. The children whose mother tongue is Quechua or Aymara, for example, are not only at a disadvantage in the first years of school but also receive the false idea that their culture is inferior and that they will be able to participate in the official culture of the country only insofar as they abandon their own traditions. The struggle against the aboriginal languages can only foster misunderstanding among the different peoples of Peru.

- *The teaching of the native language would be an obstacle to the learning of Spanish.* Results obtained in teaching in the mother tongue in countries like the USSR, New Zealand, and the Philippines have caused UNESCO experts to affirm categorically that, "... it is possible to give the students an equal or better knowledge of the second language if the school begins teaching in the mother tongue."[2]

These experiences have also shown that in order for the teaching of a second language to be beneficial, it must be done in a way that does not threaten the use of the mother tongue or endanger the personal identity of the student or the group. If Spanish ceases to be identified with the oppression of a culture and a people, the motivation to learn it will be greater.

- *The vernacular languages are not adequate to express modern concepts; they are primitive languages which do not*

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[2] UNESCO, "L'emploi des langues vernaculaires dans l'enseignement." Paris: UNESCO, 1953.

have a grammar or literature. Linguists agree that all languages are completely adequate to express abstract ideas even though they are borrowed from another culture. Only adaptations in their vocabularies need to be made, as is done in all languages in order to express new concepts or to name new objects.

Every language has a structure, a key shared by all its speakers, which permits them to understand each other. This orderly arrangement of a language, its harmonious flow, is its grammar. Linguists study it and try to decipher it, but the grammar exists before it is converted into a set of rules, just as a mineral deposit exists before the miner discovers it.

All our aboriginal languages have a rich oral literature—complicated myths, stories with deep social meaning and very beautiful songs. The fact that only fragments of these have been recorded does not deny their value or the possibility that they will be written in the future. After all, Homer's poems were oral tradition, and all Greek literature thrived on the myths which were passed from person to person for centuries.

We are aware that the educational task in Peru will be more and more complicated in proportion to the measure in which its linguistic and cultural variety is taken into consideration. We must promote investigation of the actual linguistic situation in the country and gather oral, popular literature in the aboriginal languages as a basis for a more complete written literature. This is one of the most immediate and serious problems that the new educational system will have to confront. Linguists and others who study the aboriginal languages and cultures could also cooperate in the training of teachers and the preparation of school materials.

The new educational policy will doubtless meet with certain resistance from those who understand Spanish. During a recent visit to Parinacochas in the Department of Ayacucho, we interviewed many parents. We found that a number of them were afraid that the teaching of Quechua would not only be useless but would also be an obstacle to the learning of Spanish, which is the first and foremost requirement for accomplishing the painful process of abandoning one's own culture. Some confuse this with cultural integration. These prejudices of the rural people are the result of a social order, an educational system, and an ideology that tended to discourage the aboriginal cultural personality. The situation can be corrected by making changes in the economic structure, but it will only be abolished by radical educational reform. To accomplish this, a tremendous effort must be made to encourage recognition of our great diversity and the value of each and every culture. Only through mutual respect for the variety of cultures which comprise our country can dialogue be established which will enrich and strengthen all Peruvians.

5

THE HISTORY OF EDUCATION AMONG THE AGUARUNA

Gerardo Wipio Deicat

EDUCATION IN PRECONTACT AGUARUNA CULTURE

The Aguaruna[1] lived for centuries without knowing about schools. They received the wisdom of their ancestors from their fathers by means of a system called *jinta ainbau*, meaning "follow the trail made by our forebears." This consisted of drinking tobacco juice and the hallucinogenic drugs, called *ayahuasca*[2] and *tué*, and sleeping alone near a waterfall beside the tomb of a *mun* (great leader). In this way they practiced the philosophy of the great thinker *Bikut*, who formulated laws for the Aguaruna to obey and predicted all that would come to pass among the Aguaruna.

To obey the laws that Bikut had prescribed and to see the fulfillment of his predictions, the young men had to complete certain tests and obey certain prohibitions. The tests consisted of drinking tobacco juice and hallucinogenic drugs off and on until the age of twenty-five or thirty. If a young man failed to do so, he was considered incapable of being a warrior, he would not have a long life, and he was not to be considered a great person, respected by the society.

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[1] Some 22,000 Aguaruna live in the Andean foothills of northern Peru. Aguaruna is a member of the Jivaroan language family.

[2] *Ayahuasca* is the ordinary Spanish name for the vine *Banisteriopsis caapi*, a species belonging to the *Malpighiaceae*. For more details see Michael J. Harner, ed., *Hallucinogens and Shamanism*. (New York: Oxford University Press, 1973).

The prohibitions specified not having sexual relations before marriage, not sitting on the seat reserved for the women, not associating with or playing with girls, and not using anything perfumed. The young men were to walk in front rather than behind the girls, who wore perfumed necklaces that could be detected from a distance. All the young men who obeyed these rules were considered to be pure of thought, disciplined, worthy of respect by the Aguaruna society, and destined to be valiant warriors.

Since they were following strict discipline, they were prohibited from making any kind of sign on a tree with a machete or ax. If such a mark were made, their relatives investigated carefully until they discovered who was responsible. The guilty party was taken to the *mun*, who gave him a scolding. The *mun* was the highest authority in the area, he meted out punishment to the young men, and his laws were obeyed by everyone.

Additionally, children had to obey all their parents' advice and learn to do the work that their parents did. They were taught to be useful members of the Aguaruna society because men who were hard workers and good hunters and women who were hard workers and faithful to their husbands were the preferred marriage partners.

The father would spend all night spinning cotton, which he used to weave an *itipak*, the skirt which he wore, or a *buchak*, the sarong worn by his wife. The rest of the family slept until 2:00 a.m., the time which the Aguaruna call the first crowing of the rooster. At that time the father would wake up his wife and children so that they wouldn't have bad dreams and so that he could teach them how to spin cotton.

After he woke everyone up, the father would recount the feuds with neighboring groups, talking very loudly and with great force. He also had his older son practice so that he would learn to talk the same way and thus demonstrate his bravery. After this long conversation about their enemies, he would counsel his sons not to be evil, corrupt, cowardly, or hateful, but rather to be good men and hard workers, worthy of the respect of others.

ECONOMIC SYSTEM

The Aguaruna did not worry about what things cost. They traded what they had for what they needed or wanted from each other. For example, a man who didn't have an *itipak* because he didn't know how to weave would trade a blowgun for one; a man who didn't have a crown traded a shoulder bag for one, etc. The women also traded. This made for an equal society, where everyone had the same things. This equality extended to other areas as well. If a young man was to be married, everyone helped build his house and clear his garden. They even gave him some domesticated animals so he could begin his work. Animals killed in hunting were all divided equally. If a person couldn't help fish because of other responsibilities, he wasn't left without fish, as everyone gave him a few of theirs.

FORM OF GOVERNMENT

Each extended family group was governed by a *mun*. When there were serious problems, the people complained to the *mun*, who first investigated the situation and then gave his decision. No sanction or punishment was given without his approval. If someone acted without the *mun*'s knowledge, he had no backing and could not be defended. An exception occurred when someone who was considered to be in the same class as the *mun* acted without consulting him and then successfully defended his decision. In all likelihood this type of Aguaruna was destined to be the *mun*'s successor.

DESTRUCTION OF THE AGUARUNA CULTURE

While the Aguaruna were living as described above, Spanish-speaking outsiders arrived looking for rubber, gold, hides, and other products, hoping to make their fortunes. These men found that the Aguaruna were gentle people when treated well, but rebellious when not shown respect and when abused.

Exploitation was perhaps an inevitable consequence of contact between two groups with such diverse goals and life-styles. It began when the Spanish-speaking outsiders told the Aguaruna that the land where they lived did not belong to them but to the "State." They used this as their justification for coming to work the land. They brought many things with them—guns, shells, cloth, mirrors, etc.—things which really impressed the Aguaruna. The outsiders showed them the use of these articles and offered to trade with them for raw rubber, hides, and other produce. Some Aguaruna agreed and accepted the trade goods, promising to bring rubber. Now at this time the Aguaruna were illiterate and did not know how to keep accounts. Thus, little by little the whole Aguaruna society fell under the power of the Spanish-speaking *patrones* because the Aguaruna went into debt to them.

People who had debts attemped to pay them off by making rubber. Working in the jungle where they lived, they extracted the latex from the trees and then heated and smoked it until it became rubber. Often they began working at five in the morning and didn't stop until six at night. It took a month to make a ball of rubber weighing fifty kilos. Once they had a ball this size, they took it to the *patrón*'s place. The *patrón* did not weigh the rubber with scales; he just guessed at the weight by lifting it in his hands. (For this reason the Aguaruna call the *patrones* "arms of a scale.") Thus, the Aguaruna were always being cheated out of receiving full value for the rubber they brought in.

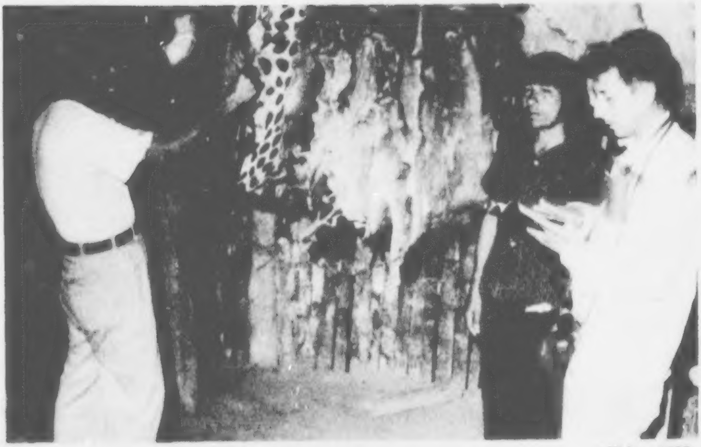
The *patrones* cheated and exploited the Aguaruna laborers in other ways, too. They had books in which they listed all the things which they gave to the Aguaruna. However, when an Aguaruna brought his product, they would fail to mark down his credit. The *patrón* would later look at his book and say, "It's written here that you have a debt of so much, and to pay this you have to bring more rubber." The Aguaruna would answer, *"Tauwa! Parjugka, wi uwejan makichik amua shijigkan itajuamjama!"* ('That can't be, *Patrón*. I have brought you five balls of rubber'). The *patrón* couldn't remember because he hadn't written it in his book. The

Aguaruna lamented, "If I could only read and write I'd know what my accounts really are! The *patrón* is robbing me of my rubber and keeps asking for more."

To keep the Aguaruna in debt, the artifacts that they made, such as hand-woven cloth, carrying baskets, blow guns, clay dishes, large clay pots, etc., were ridiculed by the Spanish-speaking intruders, who considered them valueless because they weren't durable. When they wanted to sell a cup or pot, they grabbed a clay pot and a pot made of aluminum and threw them both down on the ground. Of course, our pottery broke easily because it was made of clay. Then the *patrón* would say, "Okay, do you see? See how the clay bowl and pot broke, while the aluminum plate and pot didn't break. It is much stronger and will last you a lot longer. Take this plate and pot. You must bring me jaguar or otter skins to pay your debt."

Another problem the Aguaruna had was that the outsiders were always trying to make them feel inferior by ridiculing their appearance and life-style. If the outsider met an Aguaruna man with long hair, dressed in his *itipak*, he would insult him by saying, "You dress like a woman. Why do you have long hair, and why do you wear a skirt? You ought to cut your hair and put on pants and be like us. Buy these things that we have brought for you and then bring rubber to pay what you owe." This was a very effective way for the intruders to keep their domination over the Aguaruna and to keep them in debt, because the Aguaruna took the things offered and began working rubber.they stopped making their own and bought the things the *patrón* offered them. More and more their life-style kept changing.

The process of change moved quickly for some Aguaruna who lived close to the *patrón* and learned his culture and abandoned their own, turning into *patrones* themselves. They refused to speak their own language after they had learned the language of their *patrón*. They served his purposes, acted as his interpreter, and were considered traitors by their own people. Sometimes they were sent by their *patrones* to all the houses to collect the rubber.



(Elder, 1957)

Daniel Dánduchu, an enterprising Aguaruna school teacher, assisted by Efraín Morote Best, first Coordinator of Bilingual Education in the Jungle, organizes a cooperative for the benefit of his people (see chapter 5).

(Elder, 1957)

Members of the Aguaruna cooperative bring batches of raw rubber to Daniel Dánduchu (see chapter 5).

THE COMMUNITY SEEKS A SOLUTION

Because of all these problems, some Aguaruna began thinking about studying. They realized that if they learned to read and write and speak Spanish, they could claim their rights and sell their products without anyone deceiving them.

As a result, the first Aguaruna, Nantip and Uwarai, left to go and study on the coast. They planned to return and help their people, but they never finished their studies, because they lost their lives. However, other young men—Daniel Dánduchu, Francisco Kaikat, and Silas Cuñachi—decided to follow Nantip and Uwarai. They went out to the coast and finished their primary education. Daniel Dánduchu returned to his village and shortly thereafter, with the help of one of the SIL linguists, prepared to become a bilingual school teacher. Later, the Peruvian Ministry of Education named him the first Aguaruna teacher. He founded a bilingual school at Nazareth in 1953. In 1954, he founded another school in Chikáis along the Marañón River. As he established these schools he announced to all the Aguaruna that they could now enroll their children.

Many of my countrymen came, anxious to enroll their children rather than sending them to the jungle to follow the *jinta ainbau* of the past. They knew it was only by going to school that the children could learn to read, write, and speak Spanish. Generally they enrolled the young men and boys; I was one of those who attended school at Chikáis. Even before we finished studying, we had promised that we would teach other children and help our parents in the selling of produce, so as to avoid the exploitation and abuses committed by the traders who had come into the area.

Within five years after the first school was established, there were young men prepared in the bilingual schools who were ready to become teachers. With the help of SIL and the government, they were trained at the Ministry of Education facilities at Yarinacocha and went to various communities establishing more bilingual schools where even today the flag waves and the national anthem is sung. "We are free, may we be free forever!" is sung with enthusiasm and pride because, even more than the freedom and independence of our country from Spain, we feel freedom from exploitation and from illiteracy. Because he was the first teacher and brought freedom, Daniel Dánduchu is considered to be the "Father of Bilingual Schools" by the Aguaruna people.

Since this beginning in 1953, the Peruvian government, with the cooperation of SIL, has continued preparing native teachers for the different ethnolinguistic groups, training teachers in the methodology of bilingual education and also preparing health and community development promoters.

Our government continues to be concerned about helping indigenous communities—oppressed groups of people who for many years had lived without receiving this type of education. The *National Policy of Bilingual Education* was proclaimed,[3] which recognizes the value of the various vernacular languages in the country and their use as a means of communication and cultural expression. Moreover, it continues to promote bilingual education so that everyone may learn to speak Spanish, but respects the cultural characteristics of minority groups. The government has also given us the *Law of the Native Communities and Agricultural Development of the Jungle and the Foothills.*[4] This law makes clear our legal existence and judicial recognition as native communities and guarantees us full ownership of our lands. The government has also given us municipal authorities so that we can register the birth of our children and in this way obtain personal documents. (In the past we had no way to identify ourselves as citizens of the country.)

With all this help from the government and from members of SIL, the indigenous communities are blooming in the midst of the immense green jungle. They are learning to know their brothers—other indigenous people who for centuries have lived in the same region without knowing each other. They are coming to recognize the government's objective of transforming the jungle into something useful for the country. We also feel more capable now of collaborating with the government in its great work of forming new men—men who will be full participants in a society which is free, just, and united—a society involved in creative common work and embued with national values. And we bilingual school teachers are teaching with the goal of forming these new men for this new society. Only in this way will the indigenous people of the jungle make progress which will be for the betterment of our beloved Peru.

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[3] *Política nacional de educación bilingüe.* Lima, Perú: Ministerio de Educación, 1972.

[4] Supreme Decree No. 20653, Lima, June 24, 1974, which was replaced by Supreme Decree No. 22175 on May 9, 1978.

BILINGUAL EDUCATION AMONG THE AGUARUNA

To attain these aspirations among the indigenous peoples, it is necessary to educate in the vernacular language, that is, to apply a program of bilingual education.

What is bilingual education? For the Aguaruna, bilingual education means education in two languages: Aguaruna and Spanish. We Aguaruna teachers teach our children in our mother tongue in the lower grades at the same time we are teaching them Spanish as a second language.

Why do we teach in the mother tongue in the lower grades? Because one hundred percent of the children are Aguaruna speakers, and Spanish is a foreign language which they do not understand. Many people think that by teaching in Aguaruna we are wasting time and the children do not learn well. They think that if the children learn to read and write in their own language, they will have serious problems learning Spanish, and therefore they prefer that they be taught in Spanish. For many reasons we consider that teaching in Spanish in the lower grades in a native community is contrary to good pedagogical principles.

In order to clarify this, I will try to explain some of the problems faced by a native child when he goes to school for the first time. Aguaruna children receive the following counsel and prohibitions from their parents:

"Children, don't go out of the house alone because the evil spirits might carry you away and, after beating you up, throw you over the bank of the river."

"Children, don't go near other Aguaruna whom you don't know, because they can hurt you through witchcraft, and don't go near Spanish speakers because it's likely that they will steal from you."

"Children, don't play with older children because they are likely to hit you, and then who will defend you?"

"Daughters, don't play with the boys, because they may harm you."

"Children, don't make friends with other children who are not well behaved."

"Children, be careful not to go into the teacher's house lest he give you an injection of medicine."

"Children, when you go to school, don't play with the other children. You should always stay with your brothers and sisters."

"Children, when you are in school, don't sit with the other children, just sit with your own sister."

Because of all this advice from their parents, the children become fearful, and when they are taken to school by their mother or someone else in the family, they always cry and are afraid. They find the classroom very much different from their home, and the situation is much worse if their teacher doesn't speak their language, as is the case with teachers who speak only Spanish.

Because of these problems, the bilingual teacher gives special attention to the needs of the children during the first weeks of his work. First, he must get to know all of the children, making friends with them, conversing with them in the vernacular in a loving manner, and suggesting things to talk about by such questions as: Where do you live? How did you come to school? Who brought you? Do you like school? Do you know someone else here? However, he must avoid asking about the child's parents if he isn't sure they are living, because, if the child is an orphan, he will become sad and cry and may no longer want to come to school.

As the teacher gets to know each of the children, he encourages them by explaining everything about the school to them. He tells them that the school will be like their home. The other children will be their friends, and they will play together every day. They will work together learning to read, write, sing, and draw, and in this way learn to be good children. The teacher tells them that he is the older person who will help them if they have difficulties, and that he will take care of them and not let other children hit them.

And so the teacher shows kindness and love to the children without demonstrating any kind of avoidance, contempt, or discrimination, even though there may be some children who are not very clean and some who may have old, dirty clothes. Since the teacher is also Aguaruna and was like them when he was a child, he treats them with love. He is interested in molding lives which, in the years to come, will be useful to the community.

Little by little the children become accustomed to attending school and being with the other children. They learn to share school materials and to pay attention to the teacher. Since the teacher teaches the lesson in their language, the children understand very well; it is their language, and they remember easily what they are taught.

At first Spanish is taught orally. The children learn easy expressions which will be helpful in their daily lives, such as greetings and dialogues useful in conversation with visitors who come to the community. The teacher encourages them to practice these expressions regularly in school and whenever they meet someone who speaks Spanish, but he does not insist that they all talk Spanish.

After the children have learned to read and write well in their own language and know the syllables, he teaches them to read and write in Spanish, but he is always sure to translate the meaning into their mother tongue. In this way, little by little, without too much pressure being put upon them, the children acquire Spanish as a second language.

However, when the teacher is a Spanish speaker working in a native community, he does not have the same patience that the native teacher has. In the first place, because he doesn't know the culture, the real world of the native child, he doesn't give importance to, or take interest in, the tremendous reactions and cultural shocks that the child suffers in school. Without paying attention to these psychological problems, which can damage the child, he tries to teach in Spanish even though the child doesn't understand him. If the children don't learn, he insults them by saying, "You don't know anything. You are stupid and dumb and so you don't learn anything, even though I've been teaching you well. I am teaching you in Spanish, but you don't learn."

Sometimes, when Spanish-speaking teachers converse among themselves, they say that Aguaruna children can't learn Spanish. They say, "I have a problem because they don't understand me, and so I have forbidden them to talk in their language. They may only talk in Spanish; maybe that way they will learn more quickly."

Because of these problems, the native children are frightened in front of the Spanish-speaking teacher, and they are embarrassed by the insults and hang their heads. When they want to ask questions, they lack confidence because they fear that the teacher will again embarrass them for not expressing their ideas well. They feel bored, disoriented, and discouraged with going to school, and so they drop out.

While I was working as a district school supervisor, I had the opportunity to visit various schools in Aguaruna communities. On one visit I found a teacher who was working in a community where no one spoke Spanish. The teacher did not speak Aguaruna, but he was teaching various grade levels in Spanish. He wrote on the blackboard in Spanish, and the children copied exactly what he wrote, even though they were not able to read it. The one child who could read what was written did not know what it meant. Afterwards the teacher said to me, "Look, my friend, I'm teaching all that I can, but they don't understand me, and they don't know how to read."

I said to him, "But you should teach them by explaining to them in Aguaruna so they will understand." He said, "But I don't speak Aguaruna. That is my problem. I can't even talk with the members of the community about education."

There is a great lesson to be learned here. How many times have administrators made the mistake of putting teachers of this kind in native schools and asking them to teach in Spanish! How many frustrations have the native children suffered from this kind of school! This is why we teach in our own language in the bilingual schools and learn Spanish as a second language. Only an Aguaruna can teach an Aguaruna. Because of this, we bilingual teachers, although minimally trained, began to teach as much as we were able and each year prepare ourselves to teach a bit better.

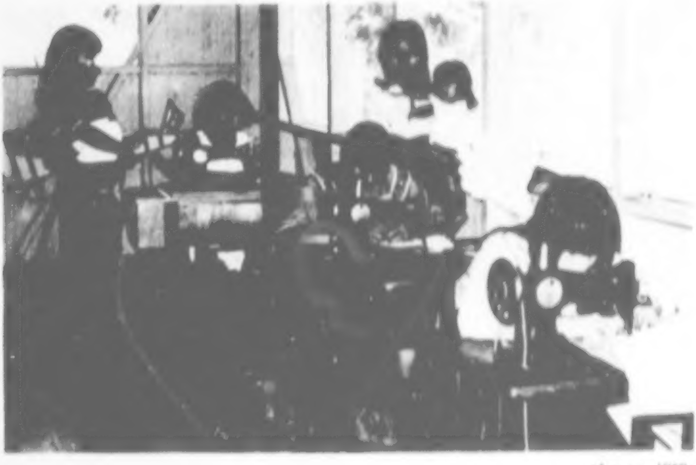
I would like to emphasize the fact that we indigenous people have a language which is the product of our culture and which is valuable as a system of communication among us. There are many who do not consider it worthy to be used as a means of instruction, like other languages. But the alphabet which we have been using, and which is still in use, has received the approval of several administrations of the Peruvian government. The materials we use in our schools have always been authorized by the Ministry of Education. We have functioned this way from 1953 until the present. Many of the young men who have graduated are now serving their country as civil servants. For this reason, we indigenous people consider bilingual education to be the solution to the grave errors which occurred in the teaching of native children when they were obliged to study in Spanish, a language very different from ours and a language which they could scarcely understand.

Therefore, I believe that those who teach in a language other than that of the child in the lower grades are violating principles of good pedagogy and are guilty of cultural imposition. More often than not, this type of education has been the cause of native children dropping out of school and experiencing psychological trauma, resulting in their failure to learn to read and write.

Bilingual education does not signify abandonment or rejection of the teaching of Spanish, which is also a necessary tool for communication with our Peruvian society. Rather we teach in Spanish in the more advanced levels.

(Hesse, 1964)

Pupils line up for opening exercises at the Aguaruna bilingual school at Nazareth (see chapter 5).



(Lance, 1969)

In a course specially organized for them, wives of bilingual school teachers learn to use treadle sewing machines (see chapter 6).

(Hesse, 1963)

On completing their training, bilingual teachers receive their diplomas at a graduation ceremony in the Peruvian jungle (see chapter 6).

(Lemke, 1972)

Raul Sinacay, an Amuesha teacher, studies the diploma he received upon graduation from the Teacher-Training Course (see chapter 6).

PART II

VARIOUS ASPECTS OF THE PROGRAM

PART II

A Report on Various Aspects of the Program

The first part of this volume presents background material and principles on which Peru's bilingual education program was founded. In this second part, various aspects of the program are described in detail. Our purpose is to inform the reader of the ways in which each part of the program had to be made explicit if it were to be successful.

Many of the bilingual teacher candidates had a very limited amount of training. There was little in their experience to give them clues as to how to function as school administrators or teachers; many had never been to school themselves. Since it could not be assumed that the teachers would know what to do, it was necessary to present the program to them in simple steps which they could remember and use effectively after returning to the isolation of their own communities. However, in more recent years, great changes have occurred in this area. In the main, teachers now—many of them products of bilingual schools—are more knowledgeable and creative, capable of handling more complex material with less direction. The principles of training for intelligent decision making has borne fruit.

Because it has been important to have a detailed program, we will discuss some of these details in the following chapters. We trust they will be helpful to others working in programs where similar detail is needed.

The chapter on teacher training gives both a historical account of the development of training courses and a description of many facets of the total program. The next three chapters deal with goals and their implementation through specialized materials, curriculum, and administrative support; supervision; and teachers' conferences. Goals and curriculum are based on the national program of education in Peru, but are unique in their adaptation to the needs of the schools for ethnic minorities. Supervision, as presented here, is also unique in that, once again, the persons being trained as supervisors were not highly educated when they assumed the responsibility but, nevertheless, were successful. Annual teachers' conferences are shown to have made a positive contribution to the effectiveness and growth of the Aguaruna bilingual schools.

The authors of this section are SIL members who have worked in bilingual education under the Peruvian Ministry of Education. Drs. Shell and Larson have already been mentioned in the introduction to Part I.

Patricia M. Davis, with years of experience in the Machiguenga bilingual schools, has prepared school materials in that language, taught pedagogy during the teacher training courses, and helped in curriculum planning as well as in the preparation of teaching materials for teaching Spanish as a second language. She works with Martha A. Jakway coordinating the preparation of teaching materials, and both serve as literacy consultants.

Miss Jakway has worked with Aguaruna teachers, prepared materials in that language, and taught pedagogy during the training courses. She has also led the way in training supervisors, in preparing materials for adult education, and in training teachers of adults for the Aguaruna villages. In addition, she has led several workshops for the training of native authors.

6

THE TRAINING OF BILINGUAL TEACHERS

Olive A. Shell

Bilingual teachers are the key people in a program of bilingual education such as has been carried on among the vernacular-speaking peoples of the Peruvian jungle. Therefore, it has been essential that they receive the most adequate training possible. A brief history of teacher training in the jungle situation will show how the training facet of the program has developed, to keep pace with, or perhaps rather to set the pace, for the development of the program as a whole.

THE FIRST TRAINING COURSE: PILOT PROJECT

The very first training course, as proposed in Lima, was to be held during the school vacation months, January to March, 1953. The course was to be held in Yarinacocha, a point centrally located between the northern and southern jungle region. The Ministry of Education would finance housing, food, and travel and name a director for the course; the candidates, after training, would teach in their communities during the school year and, as long as such training was needed, would return to pursue their studies during the vacation months of each year. Beyond those basic plans, the proposed course posed further immediate questions, such as: Who should be trained? In what classroom facilities and student housing should the course be held?

The major problem was finding literate, bilingual candidates, people who could read and write in the vernacular and in Spanish. In addition, they had to be men accepted and respected in their communities. In a few communities located along the main rivers, some candidates were found who were already somewhat literate in Spanish, having attended elementary schools where teaching was in that language. In some communities, initial literacy materials made by the field linguist had been instrumental in giving basic training in reading and writing; also some elementary arithmetic materials had been prepared and used. The first class of candidates eventually comprised fifteen individuals from six language groups. A few of these did not really qualify as candidates, and had to be coached separately in order to become literate.

Meanwhile, the site for the new venture was chosen. The jungle forest land was cleared, and a jungle-style classroom built, i.e., palm-leaf roof, unbleached muslin ceiling, low board walls (from which metal screening continued to the height of the ceiling), and a dirt floor. In this more or less insectproof accommodation, a long blackboard, teacher's table, and student tables and benches (wide enough for two) were added. Thus the stage was set for the faculty (the director, an educator from Lima, and a subdirector from SIL) and the student body. There was even a small sports field, from which fallen trees and chopped-down growth was cleared. For student housing, land adjoining the classroom, along the road, was cleared, and several leaf-roofed, jungle-style houses were built.

Near the time for school opening, the candidates began to arrive: by raft from far upriver, by small airplane from more distant communities, and by canoe from the nearby indigenous group. Most of the married men brought their families and household equipment, including mosquito nets and cooking pots.

Curriculum planning was not very complicated. As to academic subjects, the director, who was also the main teacher, taught reading (in Spanish,[1] of course), writing, and social studies (including history and the geography of Peru), trying to adapt the subject matter and the details of presenting it to the level of education and Spanish ability of the students. The subdirector did the same for arithmetic and notions of hygiene.

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[1] Throughout this chapter the titles of textbooks and names of courses have been translated from Spanish into English for the convenience of the reader.

In preparation for the months ahead, the teacher candidates were shown how to construct classrooms in their communities. The Yarinacocha classroom served as a model, except that palm bark would be used instead of planed boards. They were taught such basics as: the lighting (from the sun) should be adequate, preferably from the left side, and must not fall directly on the blackboard (causing reflection difficulties) or shine directly in the pupils' eyes. These students were also taught simple carpentry and the use of basic tools in Saturday morning classes so that they would be better prepared to make tables and benches for their future pupils, utilizing primarily jungle materials.

As to pedagogy and school organization, the students were taught such matters as: how to use a clock in dividing their day into 50-minute class periods, with a 10-minute break before or after each hour; how to arrange their pupils according to size and ability; and how to keep attendance records. The academic school subjects were to be reading and writing in the vernacular, arithmetic, and oral Spanish, with additional activities such as health instruction and singing. They were also taught methods for teaching lessons clearly. Field linguists who were conversant with the native languages and who had planned the native-language primers already in use in some of the villages taught the students how to use the vernacular materials. In the evenings, these same linguists coached the students, helping them to understand what they may have failed to grasp during the day due to lack of facility in Spanish or lack of sufficient academic background. (In order to be able to coach well, tutors had to attend the pertinent part of the classroom sessions during the day.)

The very circumstance of representatives of six language groups, with different cultural backgrounds, coming together, living in the same community, communicating with one another in a common language (Spanish), and sharing common goals, was unique and an invaluable education in itself. In addition to sharing classes and recreation time, the students got together to share facets of their culture in front of the whole group, in what later came to be called Cultural Programs. It is impossible to estimate how much the experience of being together meant to the students in terms of broadening their view of their native country, its peoples, their cultures, their goals, and their common government. Furthermore, they were becoming aware of the part they could play in the future development of their communities, and of their country, through promoting participation of the jungle peoples in the national life.

Closing day brought special delights for the eleven approved prospective teachers. They were supplied with teaching and school materials—chalk, notebooks, pencils—as well as tools, metal screening, and even unbleached muslin for ceilings. (It was later decided that the last two items were not really necessary.) Thus loaded with materials and the promise of a small monthly salary, they were speeded on their way, some by small plane and some by truck and canoe to outposts in the far-away recesses of the jungle, there to build their schools and school furniture, raise the Peruvian flag, teach pupils the national anthem, and perform the many other tasks they had learned in the training course.

PREPARATIONS FOR THE SECOND TRAINING COURSE: FOUNDATIONS LAID

The two major goals of the first training course had been to raise the academic standard of the students and to prepare them to be teachers. These goals were kept in mind as plans were made for further courses. As to academic training, the national course of study would be followed, with adaptations in keeping with the jungle environment.

Programming

In order to plan the pedagogical aspects of the next teacher-training course, plans for the curriculum to be followed in the village schools had to be taken into account. In some localities there might be a school for Spanish-speaking children, which indigenous children might attend after reaching a certain skill level in reading, writing, arithmetic, and communicating in Spanish. It might be possible for these children to enter at the second-year[2] level, if they had received sufficient preparation beforehand in the bilingual school. Of course, such schools were available in very few of the areas involved in bilingual education. Nevertheless, the thought provided a goal, or standard, toward which to direct the academic education of native pupils. In order to reach the second-year level, the bilingual school pupils must learn the rudiments of reading, writing, and arithmetic and of Spanish as a second language, as well as elementary lessons in natural and social sciences.

With this in mind, as well as the then current curriculum of the Ministry of Education and the course outline which the Department of Rural Education had elaborated for early grades of the primary schools, the following evolved.[3]

Reading

Reading materials in the vernacular, previously prepared, were in use during the current year, but field linguists had to be responsible for further materials to keep ahead of the jungle pupils. Primers had to be constructed that were parallel to the teaching method introduced in the first training course, or according to modifications thereof which would appear in the second training course; that is, although it was recognized that the structure of each language is different, certain general principles must be followed in order to give a basis for some group teaching of reading methods. In the preparation of materials, the author continually had to bear in mind the method he expected the teacher to use as he taught the textbook, and plan the book accordingly.

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[2] Second year was, in reality, the third year of formal training. The country's school system at that time provided for a year of transition, in which pupils became accustomed to school and began learning the rudiments of reading, writing, arithmetic, details of their environment, living together happily in home and school environment, etc. Following transition were first and second years, and so on.

[3] See chapter 7 for summary chart of curriculum and textbooks.

Writing

"Writing" would be in printed form, similar to the letters in the primer reading books, using large letters which would fill the space between the lines of the children's notebooks. (Although it was expected that some adults would attend school, books and classes were geared chiefly to children of school age.) The children were to be taught to write words and phrases from their reading books so that at this stage they would not be trying to write unfamiliar material.

Arithmetic

A set of elementary arithmetic lessons introducing numerical concepts had previously been planned for one of the indigenous groups. These lessons formed a good starting point for planning a series of arithmetic books to be used in transition classes. As the planning continued, it became obvious that native children, not accustomed to a numerical system with base 10 as in Spanish, would need more than one year of transition in order to become acquainted with the value of the numbers and to master addition and subtraction facts of numbers 1 to 20 (the standard for primary schools at that time).

Due to the fact that the pupils would be learning the beginnings of Spanish conversation while they were in the process of acquiring necessary skills in all subjects, it was decided to have three years of transition. The goal set, but not necessarily strictly adhered to, was the recognition of quantities and their representation in numbers 1 to 10, plus addition and subtraction number facts to 8, or some part thereof, as an arithmetic accomplishment for Transition I pupils; number facts to 14 for Transition II pupils; and number facts to 20 for Transition III pupils. The time required to complete the three stages would depend on the rate of progress in each classroom. Books were planned accordingly; i.e., Book 1 involved number recognition, while Books 2, 3, and 4 covered number facts. They were purposely planned to be not only pupil textbooks but also the teacher's guide to the progression and content of what he was to teach, with a teaching-like presentation of the material and exercises for pupils' practice or "application" of the new facts learned. The latter exercises were included for two reasons: (1) the beginning teachers would not yet be adept at composing exercises that would provide review of old material without using untaught concepts; and (2) in a classroom in which more than one grade was taught by one teacher, blackboard space and teacher's time for putting exercises on the blackboard would be limited. A further series of arithmetic books, 5, 6, and 7, were also prepared to be used in first-year classes in the event that some of the more progressive pupils had advanced sufficiently during the current year to be ready for further material the following year. These more advanced textbooks were formulated in simple Spanish, to be put in diglot form by the linguists and native helpers.

Oral Spanish

Oral Spanish was another subject of the developing curriculum for transition, as well as for further classes. The goal was to have children first learn the skills of reading through the medium of their native language, using vocabulary and subject matter with which they were familiar. Then these skills could be applied to Spanish, and pupils could be taught to read the books which were at that time used in the transition classes of primary schools for Spanish-speaking children. However, to apply their skills in reading without understanding the content would defeat the purpose of learning to read. In order to forestall this undesirable situation, lessons in oral Spanish were planned to include much of the basic vocabulary of the Spanish reading books. Drawings were made on cards to represent the nouns and action words of the books, and simple conversations were planned for practice in using them. This plan was not ideal, but it served until a better one could be developed a year or two later.

Nature and social studies

According to the official plan for primary schools, nature and social studies were to begin formally in classes of the first-year level. A book was therefore planned which followed the units suggested in the official plan, centering around the home, the school, the locality, and the country. The content was based on jungle life in home, school, and community, with some material relating to the geography and history of Peru as a whole. The book was planned to present words, phrases, and sentences related to the themes of the course in such a way that the lessons would serve as practice for the pupils in Spanish; therefore, the book was called *Spanish*. The teachers were to teach the content of each day's lesson in the class hour for that course, in the native language. The following hour they would teach corresponding words, phrases, and sentences in Spanish, with emphasis on meaning as well as on pronunciation. In the next few years, the title of the book was changed to *Natural Science and Social Studies*, and the lessons were translated into the Indian languages by field linguists and their native helpers. The result was a diglot edition in which the vernacular and Spanish were presented on facing pages.

Production schedule

Once the basic plans were made and the textbooks designed, it was the responsibility of the field linguist to see that vernacular reading books were sufficient to keep ahead of the pupils and that a diglot form of Spanish materials was prepared in the language with which he was familiar.

Thus the foundations were laid for a continuing program of bilingual education, through the academic and pedagogical training of teachers and through supply of materials which would not only help them know what to teach and how to teach it but would also provide practice drills for their pupils.

FURTHER EARLY COURSES: THE PROGRAM STEADILY TAKING SHAPE

The 1954 course and further planning

The second teacher training course began in January 1954. The now experienced teachers were back, with varying degrees of success to report, and ready to learn more so as to be better prepared for next year. There were also new candidates, bringing the total student body to twenty-seven.

It was obvious that as the student body increased, the number of professors had to increase and the physical plant had to be expanded. Moreover, more textbooks were needed for the teachers to take back in order to keep pace with the increasing level of their pupils' academic achievements. The following statistics show the actual expansion rate for the teacher training course in ensuing years:

TABLE 6.1. TEACHER TRAINING COURSE STATISTICS, 1953-1962

Personnel	**1953**	**1954**	**1955**	**1956**	**1957**	**1958**	**1959**	**1960**	**1961**	**1962**
Student body[4]	15	27	39	47	52	69	63	63	81	115
Professors	2	2	3	3	3	6	5	3	5	5
Approved candidades[5]	11	13	16	9	7	19		13	26	

Physical plant. In the next few years following the first teacher training course, more single-unit houses were built to accommodate families, and dormitory-style houses were built for men coming without families; classrooms were added, along with dining room and a kitchen. A house for the director and professors was constructed and furnished.

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[4] Numbers include teachers returning for more training and new candidates.

[5] Having come as new students and having completed satisfactorily the level of the training course at which they had entered, they now received authorization to teach classes in jungle schools.

Further textbooks. Planning continued, with the goal that native pupils, on reaching second year must be at a level comparable with that of second-year Spanish-speaking pupils in primary schools. Since difficulty was anticipated in attaining that level of achievement by the end of the first-year studies, a further year, First Year Advanced, was planned during which pupils might learn the content of second-year courses in the vernacular while obtaining practice in the use of Spanish related to those subjects. In accordance with this plan, the series of arithmetic books was augmented to include numbers 8, 9, and 10. The textbook *Spanish No. 1 (El Castellano No. 1)* was followed by *Spanish No. 2.* (The latter subsequently became *Natural Science and Social Studies No. 2* and was followed by *Natural Science and Social Studies No. 3.*) It was the responsibility of linguists to arrange facing pages in the vernaculars to correspond to the pages in Spanish.

According to the official Plans and Programs for the primary schools, one of the subjects included in each level was Moral and Religious Education. For classes of transition and the five following years of study, certain Scripture passages were cited around which studies were to center. Bible passages translated into the vernacular were to be used as they became available.

The 1957 course

Details of the 1957 course show both expansion and steady improvement of quality by further training of those already in service. Ten language groups were represented among the returning students, as compared with six in 1953. The following statistics show the number of students who returned for further training, indicating the year in which they had begun to train:

TABLE 6.2. STUDENTS RETURNING FOR FURTHER TRAINING

Class of:	1953	1954	1955	1956
Returning students:	6	12	13	9

In 1957, these, plus twelve new candidates from five new language groups, comprised a student body of 52, representing fifteen language groups. Of special import was the fact that one of the new candidates was a young man who had received his education in a bilingual school established in his village in 1954.

Summary of subjects taught. The students in the 1957 course were grouped into three levels on the basis of tests given at the start of the course. The three different groups were taught academic subjects and aspects of general pedagogy by the director and his wife, assisted by the subdirector. In addition, there were classes in health, agriculture, the phonetics of Spanish, carpentry, and literacy methods. Again, field linguists, conversant with the Indian languages, taught curriculum and teaching methods for materials in the native languages. They also helped during the two hours of study in the evenings, explaining lessons which students had found difficult during the day, or helping with assignments.

There were again cultural programs, and with these as a model the students were encouraged to train their pupils to present programs in their communities in conjunction with the holidays indicated on the school calendar.

Preparatory course. In the first training course, a few candidates who were not sufficiently literate and bilingual had been coached separately from the main student body. By 1957, the need for an extracurricular class, chiefly for the learning of Spanish, had become so urgent that an official preparatory course, running concurrently with the teachers' course, was established for thirteen students. The course was initiated for prospective candidates for whose language groups there were as yet no schools or for those who could not feasibly obtain preparation in native communities. This course proved to be so helpful that it was continued throughout the 1957 school year. The director of the teacher training course became coordinator of the program of bilingual education for the jungle region during the 1956 and 1957 school years; his wife undertook the heavy responsibility of teaching the students in the preparatory course. Later, and continuing for several years, such students were taught in conjunction with occupational courses which were held during the regular school year, using the facilities of the teacher training course.

Personal documents. Another aspect of the training course was the help given to the students in obtaining personal documents and land titles for their communities. They were assisted through the processes of obtaining statements of birth and documents of citizenship, which they had not been able to obtain in their isolated communities. Civil marriage was also arranged, to supplement marriage in traditional ways, for those who wished it.

THE PROGRAM UNDER WAY

By this time, a pattern was pretty well established for ensuing courses, though each course varied from the preceding ones, depending on the director, the faculty, and the students, who were increasingly aware of the requirements of a good teacher and their needs in becoming one. As can be seen by the statistical chart in the preceding section, the increase in students was slow but comparatively steady, as was the increase in faculty.

In 1961 a year-round employee of the Ministry of Education was stationed in Yarinacocha. For several years previously there had been a secretary during the teacher-training course, but now having an administrator on hand during the whole year was a great asset to the program. In addition to other duties he was responsible for book orders and other requests sent in by teachers, for making reports to the government, and for preparing budgets. In 1964, two more office personnel served during the course, later becoming full-time employees.

By 1964 the student body had increased to 154 students, representing twenty-one ethnic groups. Of these, 36 were new candidates, 20 of whom were products of bilingual schools. The government continued to finance the new candidates' travel, food, books, and other expenses. Returning teachers were salaried and were therefore responsible for their own expenses.

A resume of some of the features of the developing training course program follows.

Faculty and staff

The staff in 1964 included the director, the subdirector, the director of studies, and six other professors. In 1963, for the first time, a bilingual teacher formed part of the teaching staff. In 1964, as in previous years, the field linguists helped with methods for teaching vernacular materials and practice teaching, in evening study times, and in the books and supplies department, as well as in supervising the physical plant.

Quality and orientation of professors

One reason for the success of the program has been the excellent quality of those who have served as professors. They have usually been well-trained and well-recommended school teachers from Peru's national school system who have utilized their vacation time helping to train bilingual teachers. They have been recommended by those who knew them as being capable and adaptable in new situations. Some continuity in the teaching staff has been maintained; some professors have returned for two, three, four, and up to seven courses. The fact that three of the directors have been given the post of Coordinator of Bilingual Education is a reflection of their considerable administrative ability.

As the number of professors increased, the orientation of new personnel became one of the most essential ingredients of the teacher-training course. Orientation is designed to ease problems in adjustment to a new type of student body. The professors have usually come from city or town schools where both they and their pupils have similar cultural backgrounds, including a common native language. In our case, the students have come from cultural backgrounds not only extremely different from the professors' but also, in many aspects, different from each other's. Their knowledge of Spanish is limited, especially at the beginning levels. Coming without any orientation into such a classroom situation could result in culture shock for the professors akin to that experienced by candidates on their first appearance in the professors' classrooms.

Anticipating the problems, a few days of orientation sessions have been programmed for the new professors prior to the beginning of classes. This orientation has been given chiefly by the coordinator and the returning director and faculty. It has included an explanation of the philosophy, methodology, materials, and goals of the bilingual school program as a whole, in the setting of the small scattered jungle villages, as compared with primary schools in towns and cities of Spanish-speaking people. Thus, training of teachers to conduct these schools must be uniquely different from training in other teacher-training schools: academic, pedagogical, and other goals of the course, and details of plans for attaining them, must be discussed in the orientation classes.

An equally important characteristic of the orientation sessions has been an explanation of the cultural and academic background of the students to help the professors understand them better. It has been pointed out that the student teachers have been chosen by their communities because of their academic abilities and potential for carrying out leadership responsibilities; because they are professionals and community leaders; and because they have a history and a cultural heritage which is different from the professors', a knowledge of which will enlarge the professors' own store of knowledge and provide new challenges in their classroom work.

Though the academic and Spanish ability of the students may be limited, there is no doubt that they have made tremendous progress and continue to do so. Since they have not yet become accustomed to the detail involved, they will probably need extra help with filling out forms and other administrative matters. As students of the teacher-training course they are living in an abnormal environment with corresponding frustrations. Because they are receiving instruction in a second language which they are still learning, there is often mental fatigue. In addition, they are struggling with the pressures of assignments and unfamiliar vocabulary.

Considering the above points, attitudes of respect, patience, and understanding are necessary. In addition, it is necessary to speak clearly and somewhat slowly and to use vocabulary easy to comprehend, with repetition and review.[6] Almost always, during the courses good rapport and mutual respect has developed between the professors and students.

Physical plant

In preparation for the 1964 course, a new classroom, another dormitory (making three altogether), and a large office building were added. The new office building was an especially appreciated asset. Besides offices for the director and other personnel, there was a large storeroom on one end of the building. It became temporary storage space for thousands of notebooks and pencils, chalk, flags, and teaching aids, to be dispensed at the end of each year's course for more than a hundred jungle schools. Most importantly, its shelves were stocked with primers and other textbooks in the native languages, mostly in diglot form, which were also dispensed according to orders as needs were estimated by the teachers.

Student levels

On the basis of tests given at the beginning of the course, the students of the 1957 teacher-training course had been grouped into three academic levels. Although no attempt had been made in the early courses to give official credit for the level attained, by 1957 this had become possible. By 1962 there were four levels of students, and by 1964 there were six, thus making it possible for students to complete elementary-school training and be ready for high school. Although in 1964 Level I constituted a review of second-year material, in 1967 the review was abolished; third-year material was then taught in Levels I and II, fourth-year material in Levels III and IV, and fifth-year material in Levels V and VI. By 1970, due to bilingual schools in the communities, many candidates were entering the training course at fourth- or fifth-year levels, and some had already finished their elementary education. However, from smaller, more isolated communities and indigenous groups where linguistic work had only recently progressed sufficiently to establish schools, candidates were still prepared by the linguist and in precandidate courses, and entered at the lowest level.

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[6] In the early years of the teacher-training courses, special textbooks were prepared for Levels I, II, and III. The subjects thus simplified were natural science and social studies, which included history, geography, and civic education. The special books used a reduced vocabulary and short sentences in large print and well spaced. Those textbooks later became a source of material for composing a reference book for teachers and pupils of second- and third-year classes in the jungle schools. The texts for the training course are no longer in use; the reference book was used until 1972.

Nonacademic curriculum

At each of the levels, the academic material for that level was taught according to the official school system of the country. However, the curriculum included other aspects of training equally as important: organized Spanish practice, pedagogy, school administration, and practice teaching.

Increased fluency in Spanish. The method for handling additional Spanish practice varied from year to year. In 1963, when there were still only four levels of students in the training course, there were ten weeks of teaching and thirty-four hours of classroom time each week. Of these, at Levels I, II, and III, four hours per week were dedicated to remedial Spanish (three hours at Level IV). In 1965 a strong impetus was given this aspect of the course when the director, a university professor, taught and supervised two other professors in the teaching of Spanish. He prepared the Spanish course on the basis of dialogues and exercises. A placement test was given at the beginning of the course to divide the students into classes according to their Spanish ability. The same test was given at the end of the course and showed gratifying results.

Although division into levels of Spanish ability has not been a consistent part of the training course, extra Spanish help has been given. Very often the materials being developed for teaching Spanish in the jungle schools have been those that professors have used in the training course, and have been incorporated into a dual-purpose subject whereby students are not only obtaining practice in Spanish, but are being shown how to teach Spanish in their schools, using the same materials.

School administration, pedagogy, and practice teaching. These have had an important place in the training course schedule throughout. For example, let us take the 1963 plan. Of the ten weeks of thirty-four classroom hours, five hours per week were allotted to school administration in Levels I and II, and three hours per week in Levels III and IV. (In Levels V and VI, added later, there was less emphasis on this aspect of training and more on academic training.)

Level I was composed of new candidates who would be expected to teach only beginning classes. In four of the hours allotted, the candidate students were taught such basics as how to alphabetize names, how to register students, how to keep attendance records, and how to make statistical reports of grade averages and attendance. They were taught how to test pupils for placement in the appropriate levels, and then how to test their progress through the year and how to give final grades. They were also taught to prepare and use yearly, monthly, and daily plans; to make an inventory of all textbooks at the end of the year; and to prepare an order for books that would be needed the following year. (Textbooks have in most cases been school property; for many years they were paid for by the teacher or the community, but more recently they have been paid for by the government.)

The remaining hour per week was dedicated to teaching how and where to construct the school; preparation and placement of blackboards, desks, and benches; and how to care for textbooks and other school equipment. Students were also instructed in the preparation of adequate playground and sanitary facilities.

In Levels II, III, and IV, material taught in school administration in Level I was reviewed and augmented with more advanced classes in mind.

In the 1963 plan, Pedagogy and Practice Teaching were given thirteen hours per week of classroom time in Level I, nine hours in Levels II and III, and thirteen hours in Level IV. In Level I the students were taught what the subject matter was for transition classes, what textbooks were to be used, and how to teach the various subjects. They were also taught how to cope with two or three levels of students, teaching the levels consecutively and assigning helpful review or drill exercises to the otherwise unoccupied pupils.

In Levels II and III, students were prepared to teach grades beyond transition. They were also taught how to conduct classes for up to five levels of pupils simultaneously, since many were teachers in one-room schools where the number of pupils did not warrant the hiring of more than one teacher.

The students of Levels I and II were taught by field linguists who knew the structure of the primers and textbooks in the vernacular languages; Levels III and IV were taught by the professors of the training course.

Practice teaching varied from year to year. In 1964 there had been four hours of practice teaching distributed throughout each week. In 1965, part of the teaching practice was concentrated into four hours a day for five successive days, thus giving practice for the kind of planning and management that the teachers would be doing in their communities. Children of teachers' families often served as pupils for practice teaching. For at least two years, students were taken in groups, by turns, on Fridays, to a nearby Shipibo village. There two bilingual teachers conducted "model" classes which the students observed, and which would later be the subject of discussion.

In 1967, an innovation was made in the scheduling of pedagogy and related classes. These were to be taught in a special level for students who registered specifically for these courses. In the previous system, teacher candidates who had finished fifth year of primary school would not receive the necessary training in pedagogy and administration without repeating some years of academic study along with it. In this newly created pedagogy level, the students received not only pedagogy instruction, but also an extra course in Spanish grammar (from a structural point of view) and in arithmetic.

In the following years, two pedagogy courses were established. All candidates entered the Pedagogy I course first. After studying Pedagogy I, students completed the academic courses and the Pedagogy II course, in an order recommended by the director or the coordinator of bilingual education in the jungle. (During the years spent in the academic courses, the students received a small amount of refresher training in pedagogy.)

The women's course

In 1965, a training class was initiated for women whose husbands were attending the course. Prior to this, some help had been given to teachers' wives in reading and sewing, and now for the first time there was an official course for women in home economics. Basic practical courses in sewing, cooking, hygiene, child care, and housekeeping were taught. Since that time, the women's course has been a regular part of each session of the teacher-training course.

Health

In addition to a unit of study called The Child and Health, which is a part of the regular academic program in all primary schools, for several years all students in the training course were given instruction in health principles and the diagnosis and treatment of common ailments. A manual of ailments and treatments was prepared, and students were taught how to use it. The students who had had sufficient training were permitted and encouraged to take back medicines to administer as needed in their communities. During most of the training courses, an ophthalmologist from Lima donated his time to give eye examinations and prescriptions, even seeing that the prescriptions were filled. Sometimes dental help was also available.

Diverse activities

Each training course has had its differentiating characteristics. In 1964, classes in community development and premilitary instruction were introduced. Ever since a suitable sports field became available, all the training courses have had a sports program. There have been intramural soccer games between teams composed of students from the various levels. In the 1957 training course, and in several later courses, assemblies were held. Student officials of the school "municipality" were elected, and there were student committees, each with definite responsibilities related to the student body. In almost all of the courses, there has been an excursion to acquaint the students with agricultural or other projects beyond the immediate neighborhood of Yarinacocha. In 1964, the students were encouraged to write short articles, with instructive value on themes related to their communities. These were put on the bulletin board for all to read. In one of the training courses there was a special class for several students who were to become supervisors of schools for their own language group.

HIGH SCHOOL TRAINING

It has been noted that in 1964 the student body had increased to 154. For several years after that, there was little change in the number of students, primarily because students completing elementary school classes went on to study in vacation high school courses away from Yarinacocha. In 1967, there were twenty-five such students: fifteen in first year, six in second year, and four in third year of high school. In 1969, the teacher training course was expanded to include high school training and has continued to do so, thus making possible continued education for students graduating from the elementary grades. By 1977, 240 of the 320 bilingual teachers had graduated from high school.

RECENT DEVELOPMENTS

In April of 1972 a new system of education, called the Educational Reform, was initiated by the government. The government has been deeply concerned that the aboriginal languages be maintained as vehicles of communication, and is very much interested in bilingual education. At the same time, the Educational Reform, introducing new philosophies and points of view, has revamped the educational system of the country. Training courses have continued in the same general pattern as before, but are geared to the Reform system with orientation into the new methods.

In the pedagogy department of the 1978 training course, classes were taught to a small group of seven candidates as well as to a group of thirty-four experienced teachers back for refresher courses. A further group of eleven received training as supervisors, an introduction to linguistics, and other material intended to equip them for more leadership responsibility in education in the jungle.

SUMMARY

The bilingual school teachers trained in these courses have, over the years, taught thousands of pupils in a total of twenty eight language groups: in 1978 over 12,000 were enrolled. In addition to their classroom activities, they have served their communities in a multitude of ways.

Ever since its inception by the government in 1952, the teacher-training course has been endorsed and promoted by each succeeding government as an integral part of the bilingual education program. In 1956, the post of Coordinator of Bilingual Education in the Jungle was created, with technical and administrative aspects of the program to be handled by his office. The director of the 1956 training course was appointed to the post and served for two years. Such was his dedication to his work, his confidence in the teachers, and his encouragement to them that he is still remembered by them. In 1964, the director of the 1962 training course was appointed to the position. Believing firmly in the purpose and efficacy of bilingual education, he had served not only as director but had continued to be most helpful to the program as a whole. Now, as coordinator, his influence was strongly felt in all aspects of the program, including the training courses. In 1968 he was given other responsibilities in connection with bilingual education, and a new coordinator was appointed, serving in that capacity until the program was decentralized.

In addition to the interest of the government and the inestimable services rendered by the coordinators, the directors of the courses have contributed not only their professional ability in the cause of training teachers, but their personal interest, often going much beyond the call of duty in their desire to help. Many of the professors, too, are worthy of the highest tribute for their altruistic service. The assistance of SIL members in various aspects of the program has also been an effective contribution. Thus teamwork has made possible the degree of success experienced in the program.

7

THE VILLAGE SCHOOLS: GOALS AND THEIR IMPLEMENTATION

Patricia M. Davis

As detailed in chapter 6, the establishment of goals, materials, curriculum, and administrative organization for the bilingual school program of Peru has been a lengthy developmental process. Rather than being definitive, it is a process which continues to this day. The purpose of this chapter is to summarize its development with charts, outlines, and illustrations which we feel will be helpful to the reader.

GOALS

Realities of the jungle situation

The jungle presents a special situation, with opportunities and problems varying greatly from those encountered in other parts of the country. We found it necessary to analyze carefully what expectations an educator could reasonably hold. The evaluation resulted in a program which was slowed down considerably from that used in other primary schools, mainly for the following reasons.

The load of information to be taught. Prestige-language schools are geared to children who are already native speakers of the language of the classroom and, in the main, have benefited from a fair amount of preschool orientation. In contrast, children of minority groups, isolated from a literate society, wrestle with many unfamiliar concepts upon being introduced to a classroom situation, e.g., the purpose of a school, what books are, what it is to read and write, what numbers are for, and the idea of school routine, to name a few. In addition, an extra subject, Spanish as a second language, must be added to the curriculum. The result is a heavy load of new information which requires more time to teach than would ordinarily be allotted in a prestige-language school system.

Shell's experience corroborates this observation: "As the planning continued, it became obvious that native children, not accustomed to a numerical system with base 10 as in Spanish, would need more than one year of transition[1] in order to become acquainted with the value of numbers and to master addition and subtraction facts of numbers 1 to 20 (the standard for primary schools at that time).... It was decided to have three years of transition" (see chapter 6, p. 92).

There has been no indication of lower than normal I.Q. ratios in the aboriginal groups of the jungle; in general, we have found ability levels on a par with other cultures. It is language and cultural factors that require vernacular-speaking children to learn appreciably more material in their beginning year(s) of school than do children from the prestige-language group.

The effect of multiple levels. Another factor which affects the rate at which material can be introduced is the number of levels which the village school teacher is expected to handle. A teacher with a class where all the students are on the same level will be able to teach material much more rapidly and thoroughly than will a teacher whose attention is divided among four, five, or even six levels. In a multisection school, it is expected that the teacher will require more time to cover all the material than will be the case in a one-section classroom.

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[1] As explained in chapter 6, Transition in the Peruvian school system at that time was the name given to the first year of school and was roughly equivalent to first grade in the United States school system.

Goals for a feasible program

In the preceding chapter Shell has mentioned the following original general goals of the bilingual school program:

- To follow the national course of study, with adaptations in keeping with the jungle environment.
- To prepare students to enter regular primary schools at the end of second-year level, i.e., the third year of formal training in the national school system.
- To prepare textbooks which would serve a dual purpose as teachers' guides and would parallel the methods taught in the teacher-training course.
- To teach in the vernacular language initially and extend the concepts learned to Spanish.

In order to meet these general goals, specific goals were set up for each course of study.

Goals for reading, writing, and arithmetic. The outline presented in Table 7.1 delineates the goals accepted in the mid-sixties for reading, writing, and arithmetic for the first three years of study in a bilingual school. It also serves to illustrate the types of objectives which had to be kept in mind as the books were planned.

Goals for introduction of the national language. The bilingual school program was designed to serve as a bridge between the indigenous culture and the national life. This involved teaching Spanish as a second language until students were equipped to enter the national school system and study unaided (or with minimal aid) in the national language. Since learning another language is a lengthy process and one which can create both psychological trauma and mental blocks if the student is forced to learn too rapidly, it has been particularly important to allow sufficient time for language learning. The time span varies depending on the degree of bilingualism of the native populace and on how much bilingual-bicultural contact with the "outside world" is experienced during the learning process.

Peru has used the schedule shown in Table 7.2 in the jungle schools for introduction of the national language.

TABLE 7.1. GOALS OF THE TRAINING COURSE[2]

GOALS AND SKILLS CHART

Reading:

General goals:	Students recognize words and syllables, read simple material with comprehension and are able to attack new words.
Transition 1:	Recognition and reading of sight words in simple stories.
Transition 2:	Recognition and reading of syllables. Attack of short, unknown words by means of syllables. Reading of simple story material.
Transition 3:	Attack and reading of unknown words of greater lengths by means of syllables. Reading with correct expression. Answering questions concerning material read.

Writing:

General goals:	Students are able to write everything they wish to, quickly, legibly, and with well-formed letters.
Transition 1:	Correct position. Formation of all printed letters in lower case.
Transition 2:	Formation of printed capital letters. Formation of punctuation symbols. Formation of cursive letters in lower case (large size). Writing complete name. Writing by dictation.
Transition 3:	Formation of cursive capitals. Transfer of cursive letters to normal size. Writing as an expression of personal thoughts.

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[2] Compiled by Martha A. Jakway; see chapter 8.

Arithmetic:

General goals:	Students know all the numbers up to 50 and can represent groups of objects with the corresponding numeral. Students can perform the four basic operations of addition, subtraction, multiplication and division and use them with ease in everyday situations.
Transition 1:	Counting objects to ten. Writing numerals to ten. Addition and subtraction with numbers one through eight (no zeros involved).
Transition 2:	Counting objects to 20. Writing numerals. Addition and subtraction with numbers 0-18. Recognition of squares, rectangles, triangles. Recognition of the units of the national monetary system (under 20) and their equivalent values. Comparison of two numbers, using more than, less than, equal to.
Transition 3[3]:	Counting to 50. Recognition of tens and dozens. Measurements with the meter stick. Telling time by the hour and half hour. Addition and subtraction of two-digit numbers. Multiplication and division with answers to 30. Roman numerals one through twelve.

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[3] After the first years of the program, as student and teacher proficiency increased, it became possible for pupils in certain tribes to complete Transition in two years rather than in three. In consequence, Transition 3 was dropped from the schedule of many schools.

TABLE 7.2.
TRANSITION FROM VERNACULAR TO SPANISH IN CLASSROOM

GRADE	VERNACULAR LANGUAGE	SPANISH LANGUAGE
1a	80% Reading and writing in the vernacular. Entire curriculum taught in the vernacular.	20% Familiarization with classroom terms. Spanish as a second language via oral Spanish dialogues.
1b	60% Reading and writing in vernacular. Entire curriculum either taught or thoroughly explained in the vernacular.	40% Familiarization with classroom terms. Oral Spanish cont'd. Beginning of Spanish reading and writing.[4]
2	50% Reading and writing in vernacular. Main teaching in the vernacular.	50% Oral Spanish. Lesson reviewed in Spanish. Spanish reading and writing.
3	35% Reading and writing in vernacular. Explanations presented in vernacular.	65% Major teaching in Spanish. Oral Spanish. Spanish reading and writing.
4	20% Composition in vernacular. Explanations when necessary.	80% Full Spanish curriculum. Oral Spanish. Spanish reading, writing, composition, and dictation.

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4 Reading and writing of the second language is now programmed for the third year of study, although some groups which have a great deal of contact with Spanish speakers prefer to begin earlier (see further explanation below).

Grade 1c (formerly Transition 3) has been omitted because it was dropping out of the schedule of most schools by 1971 when this chart was prepared.

In 1972, a committee of Ministry of Education appointees, wishing to speed up the process of Spanish learning, recommended that in first grade the proportion of vernacular to Spanish be changed to 60% vernacular and 40% Spanish. It has never been possible to implement this schedule wholly, although, given adequate textbooks for the teaching of Spanish as a second language and careful teacher orientation, it could be followed in groups where there is a fair degree of bilingualism. In more monolingual groups, and particularly in multisection schools taught by only one teacher, the slower schedule still seems necessary if the full academic content of the national curriculum is also to be taught. This is true because a program seeking to prepare students to enter the national school system cannot afford to curtail many goals. However, a program which does not aspire to parallel the national school system might well be scheduled without allowing time for art, music, crafts, vocational training, or physical education (see chapter 20).

When should reading in the prestige language be started? The following has been our experience:

- Some of Peru's vernacular languages are considerably more complicated linguistically than Spanish and other Indo-European languages and require more time for the teaching of reading and writing.
- The ability to read in the mother tongue needs to be firmly established *before* reading in a second language is introduced. Therefore, reading in the vernacular is emphasized during the first two years of school, and reading in Spanish is delayed until the third year. The transfer of reading skills to the second language then takes place quickly.
- If reading in a second language is begun too early, vernacular-speaking children usually are able to pronounce the words (by sounding them out), but they will do so without comprehension. Reading then becomes, insofar as they are concerned, a type of hocus-pocus for which understanding is not expected. To avoid this problem, a preliminary course in

speaking the second language (called Oral Spanish)[5] is included in the beginning classes of the bilingual schools. Subsequently, the Spanish reading program is carefully graduated, beginning with words and concepts which the pupil has already learned and understood before progressing to new vocabulary. The teacher is instructed to make sure the pupils understand the new material as they read and can translate it into the vernacular. Pupils should also be able to answer questions on the material.

IMPLEMENTATION

Details of a specialized curriculum

Teaching materials. In planning textbooks and visual aids for vernacular-speaking children, we have found that the following items needed to be considered:

- THE STANDARD OF EDUCATION AND THE AMOUNT OF PEDAGOGICAL TRAINING RECEIVED BY THE TEACHERS. In the jungle, most of the vernacular-speaking teachers who initially began the teaching program were newly literate. The textbooks had to be planned in such a way that an unskilled teacher could use them easily. This was accomplished by standardizing types of lessons and unifying the format so that pages which looked alike were all taught using the same steps, which resulted in only three or four types of lessons being used per book. Recently, writing has been included in the reading books rather than in a separate book to assure that the work done will reinforce the reading lesson. Subjects for discussion, seat work, and drills have also been included as shown below. However, as teachers become more expert, they tend to depend less upon these aids and to branch out with their own creative ideas. This is also encouraged.

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[5] The preface of the textbook *Modern Spanish* (a project of the Modern Language Association. New York: Harcourt, Brace & Co., 1960), contains an outline stating methodology for the preparation of second-language textbooks. We have found these principles to be very helpful.

In former years, many teacher's guides were prepared, but in most cases they were not used very much by the teachers, many of whom are still slow readers. A profitable alternative has been to include all essential drills and instructions in the children's text, either in the lesson itself, in fine print at the top of the page, in an interleafed facing page in a teacher's copy, or (less effectively) in a page of instruction at the front of the book. Pages which include all the drill may look less interesting, but it is the only sure way we have found, so far, to assure that teachers will have and use all the exercises their pupils need (see the sample pages from the arithmetic and the new reading books on the following pages).[6]

- TEACHER'S MANUALS. These should be presented in simple language and in the form of easy, succinctly worded steps. Most teachers are too busy to take the time and effort required to struggle through paragraph-length instructions.
- TEACHING AIDS, VISUAL AIDS, ETC. These have sometimes helped in the teaching process, but if too complicated, they have proved to be of little value. Fewer aids are now used (flash cards for words, syllables, and the combinations of addition and subtraction), and their use is standardized throughout the schools.
- SIZE OF PRINT. We have found, somewhat to our surprise, that print used in the beginning books does not need to be as large as we originally thought. Although prereading material is still prepared using letter guides, first primers (unless intended for people with poor eyesight or with a similar special need) can be printed in 14-point type (slightly larger than standard pica). By the time a child's eye muscles have reached maturity (generally between his seventh and eighth

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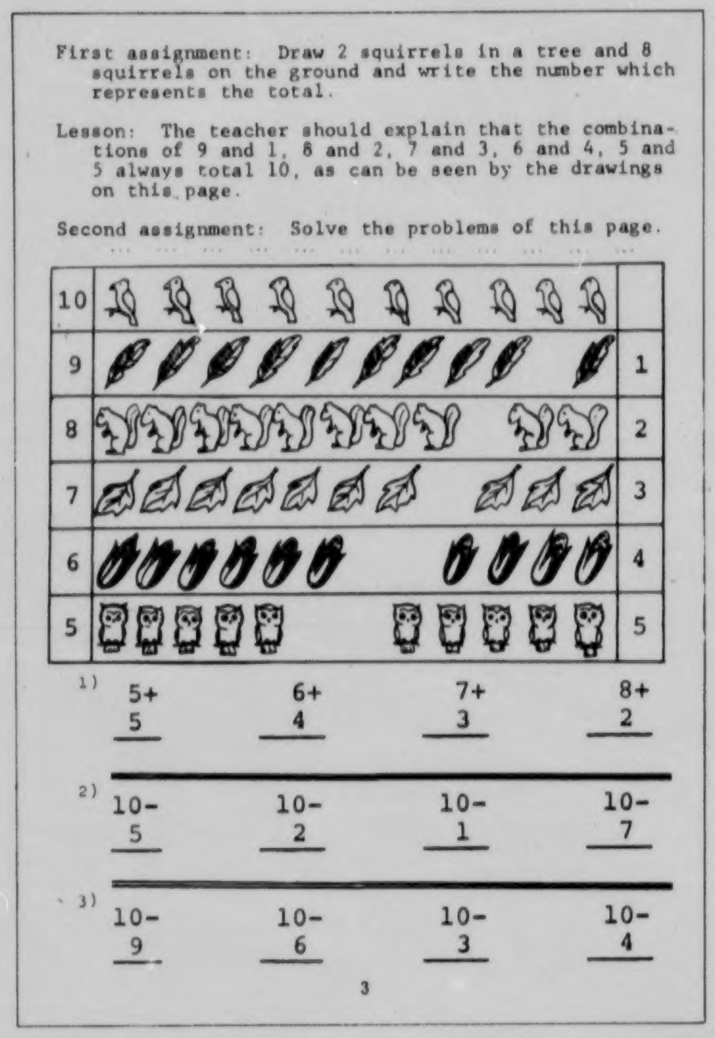
[6] Instructions have been translated into English for the convenience of the reader. A full bibliography of the materials of SIL's Peru branch may be obtained by requesting the *Bibliografía del Instituto Lingüístico de Verano en el Perú 1946/1976* from: Summer Institute of Linguistics, 7500 W. Camp Wisdom Road, Dallas, TX 75236 or from: Instituto Lingüístico de Verano, Casilla 2492, Lima 100, Perú, S.A.



First assignment: Draw 2 squirrels in a tree and 8 squirrels on the ground and write the number which represents the total.

Lesson: The teacher should explain that the combinations of 9 and 1, 8 and 2, 7 and 3, 6 and 4, 5 and 5 always total 10, as can be seen by the drawings on this page.

Second assignment: Solve the problems of this page.

10		
9		1
8		2
7		3
6		4
5		5

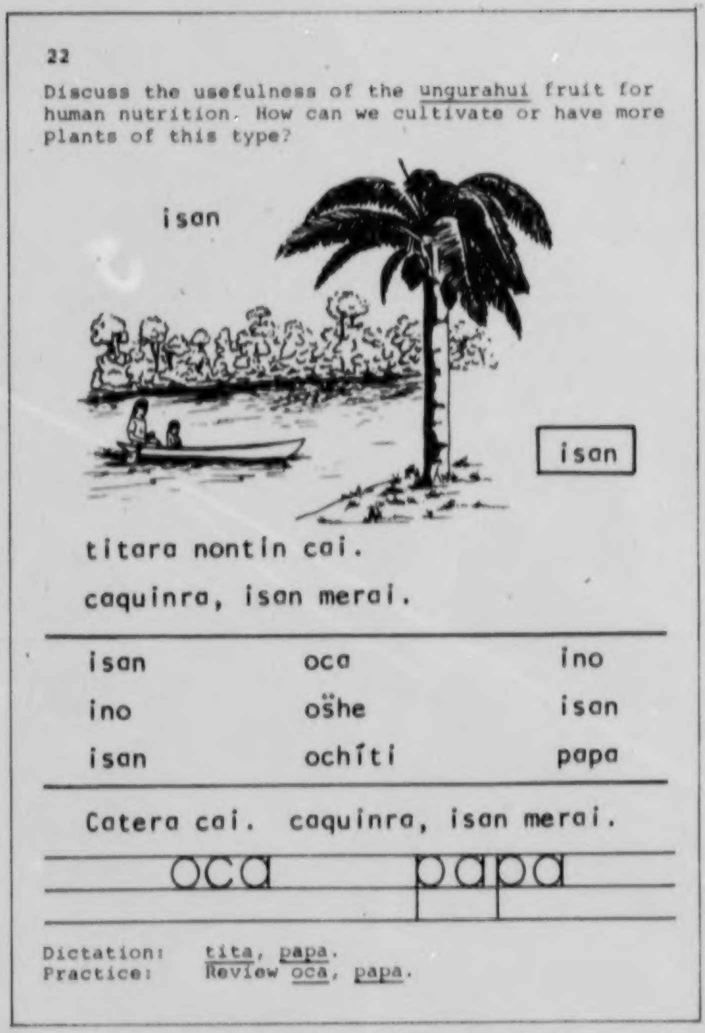
1) 5+ 5 6+ 4 7+ 3 8+ 2

2) 10- 5 10- 2 10- 1 10- 7

3) 10- 9 10- 6 10- 3 10- 4

3

Figure 7.1. Sample page from elementary arithmetic text.



22

Discuss the usefulness of the ungurahui fruit for human nutrition. How can we cultivate or have more plants of this type?

isan

isan

titara nontin cai.

caquinra, isan merai.

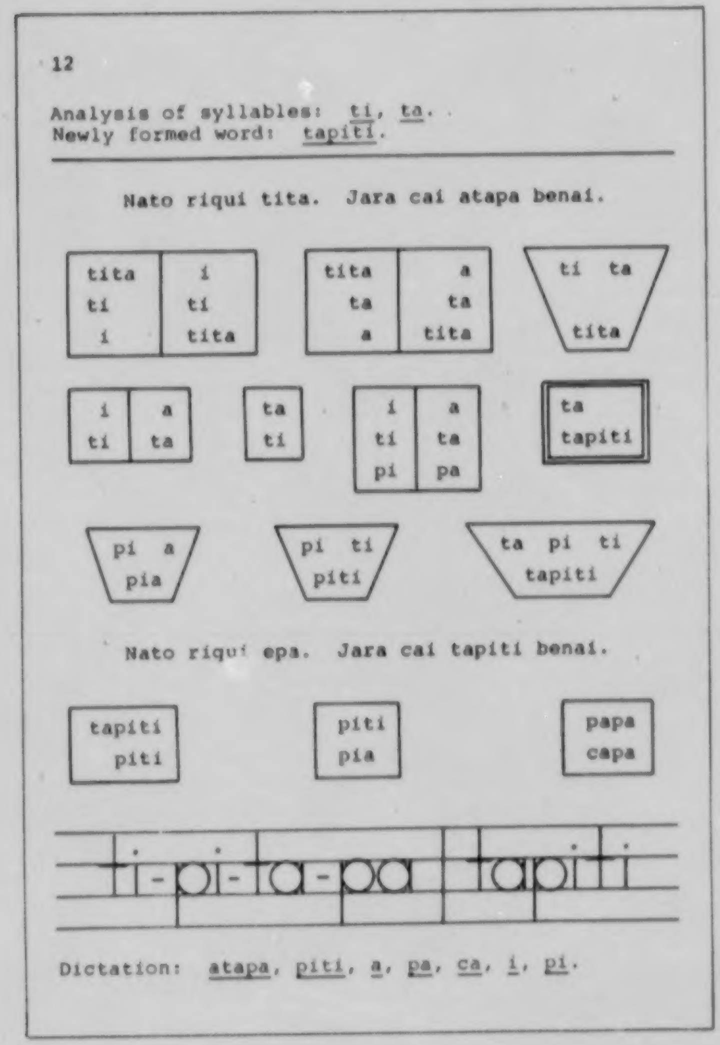
isan	oca	ino
ino	ošhe	isan
isan	ochîti	papa

Catera cai. caquinra, isan merai.

oca papa

Dictation: tita, papa.
Practice: Review oca, papa.

Figure 7.2. Sample page from a reading booklet.



12

Analysis of syllables: ti, ta.
Newly formed word: tapiti.

Nato riqui tita. Jara cai atapa benai.

tita ti i
i ti tita
tita ta a
a ta tita
ti ta
tita
i ti
a ta
ta ti
i ti pi
a ta pa
ta tapiti
pi a
pia
pi ti
piti
ta pi ti
tapiti

Nato riqui epa. Jara cai tapiti benai.

tapiti piti
piti pia
papa capa
ti-pi-ta-pa tapiti

Dictation: atapa, piti, a, pa, ca, i, pi.

Figure 7.3. Sample page from a primer.

birthdays) he is able to see as well as he ever will. Pica type may just as well be used for this age group and beyond. This does not preclude the need to allow plenty of white space and to use an inviting format, however (see samples below).

- PICTURES. Especially in the early primers, the pictures highlight items familiar to the children. We have found clear line drawings to be preferable to more complicated artwork. Stylized modern art is not usually well understood by children in Amazonia. Color can be helpful but often detracts if the shades are not realistic as perceived by the readers.
- STORIES. Stories rooted in the locale and the culture are best understood by beginning students, since they proceed from the known to the unknown.[8]

Schedule. From 1952 through 1971, in spite of a continuous process of modification and improvement, the bilingual schools maintained a similar type of program. (One major redistribution of the teaching hours did occur in the late sixties when the country changed from a five-and-a-half-day to a five-day week.) Important changes were made beginning in 1972, when the globalized method of teaching was adopted by the Educational Reform.[9] However, for the purposes of this article, we present in Table 7.3 a summary of the pre-1972 curriculum for the bilingual schools. Variation occurred, of course, from one

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[8] Futher details concerning textbook preparation may be found in Sarah Gudschinsky, *A Manual of Literacy for Pre-Literate Peoples* (Ukarumpa, Papua New Guinea: Summer Institute of Linguistics, 1973). Important principles are also found in William S. Gray, *The Teaching of Reading and Writing* (Chicago, Ill.: Scott, Foresman and Company, 1961), and in *Teaching Reading and Writing to Adults, A Sourcebook* (Tehran: International Institute for Adult Literacy Methods, 1977).

[9] The Educational Reform, applied progressively throughout the country, introduced decentralization of the school system, the globalized method of teaching reading, and modern math, and required a revised schedule, with a new set of textbooks to correspond. As the method has been tested, it has been revised. Carefully prepared curriculum books for all subjects are now given to each teacher, who then prepares Units of Experience adapted to the locale and to the cultural setting of his school. (See Appendix C for sample pages of the 1977 curriculum.)

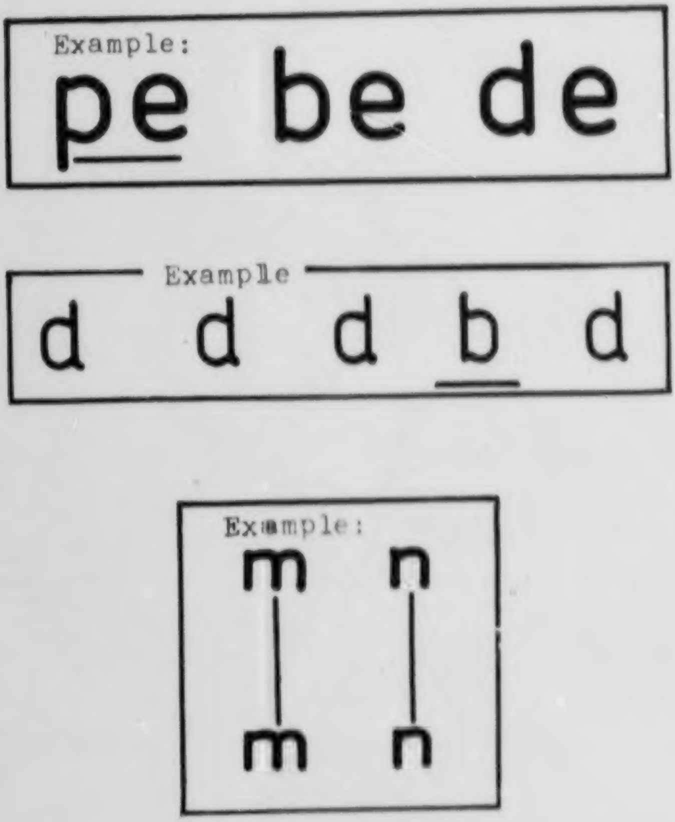
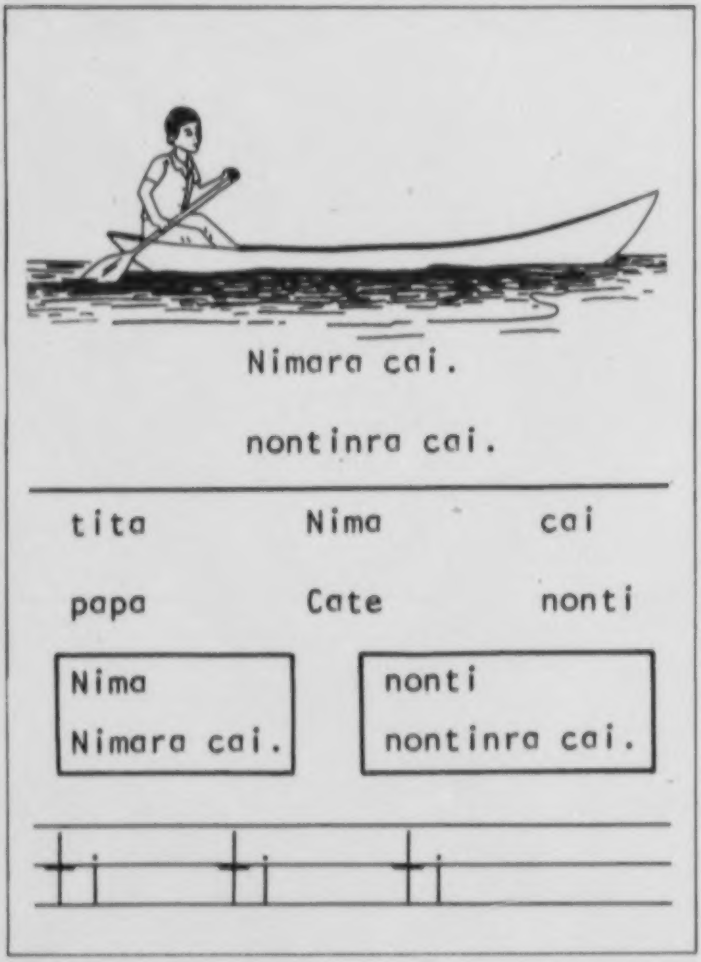

Example:
pe be de
Example
d d d b d
Example:
m n
m n

Figure 7.4. Letter size used in preprimer *Look, Think and Do*.



Nimara cai.

nontinra cai.

tita Nima cai

papa Cate nonti

Nima

Nimara cai.

nonti

nontinra cai.

ti ti ti

Figure 7.5. Sample page from the first basic reader in Shipibo, designed for six-year-olds.

TABLE 7.3. CURRICULUM AND TEXTBOOKS FOR BILINGUAL SCHOOLS

Religion: 15 minutes per day - all levels.					
	Transition 1 (Grade 1a)	Transition 2 (Grade 1b)	Transition 3* (Grade 1c)	First Year (Grade 2)	First Year Advanced* (Grade 2b)
Reading in the vernacular	Reading readiness; Primers #1 and #2 (sight words, syllables, word recognition by syllables, and simple stories).	Primer #3 (more syllables; how to attack new words; stories become more difficult). Primer #4 Follows the same pattern.	Primer #5 and #6 (emphasis on closed syllables) More connected reading to develop fluency; questions requiring written answers develop comprehension). Should be able to read short stories independently by end of year.	Primers #7 and #8 Development of reading skills and broadening of information to include unfamiliar subjects.	Advanced reading in the vernacular developing fluency.
Writing	Large printing of letters, words and syllables in coordination with Primers #1 and #2.	Printing of syllables and words chosen from Primer #3 and 4; introduction of cursive writing, large size.	Practice in writing cursive regular size, in the native language; capital letters and very short stories.	Textbook ADVENTURES IN SPANISH gives practice in writing sentences and answering questions in Spanish.	Creative story-writing in both the vernacular and Spanish.
Arithmetic	Picture cards for teaching quantities & writing of numbers to 10.	MATH #2 (addition & subtraction combinations 5 through 8).	MATH #4 (addition & subtraction facts through 20; problems).	MATH #6 (addition & subtraction of tens and units; division by 2, 3, 4).	Catch-up on math, or MATH #8-10, as an introduction to Second Year math.

	Text MATH #1 was later replaced with workbook LET'S COUNT. MATH #2 (addition & subtraction facts up to 5. Book completed in Transition 2).	MATH #3 (addition & subtraction facts 9 through 14; introduction to money, geometric figures).	MATH #5 (multiplication by 2, 3, and 4; Roman numerals, problems, etc.).	MATH #7 (multiplication and division by 5 & 6, the metric system, problems, etc.).	
Oral Spanish	A specially prepared course which teaches conversational Spanish.			Nature and Social Studies #1 - vernacular and Spanish on facing pages.	Nature and Social Studies #2 and #3 - vernacular and Spanish on facing pages.
Spanish Reading	Flexibility of schedule for beginners allowed extra playtime and early dismissal.	Spanish Reading #1, 2 & 3 which use syllables common to most of the Peruvian tribal languages and Spanish (begun the second half of the year).	Spanish Reading: 3 primers used as beginning readers in Spanish-speaking schools introduce the letters and syllables not used in the vernacular. Children emerge as slow independent readers. Words from primers are written, questions answered, etc.	Spanish language readers used in national school system.	Spanish language readers used in national school system.
Hygiene Music Art Manual Arts Physical Education School garden	Classes taught once a week for all levels, usually grouping the students all together.				

language group to another both as to hours and as to names and numbers of books.

Transition 3 and first-year-advanced (marked with asterisks in the chart) were dropped from many school schedules after the beginning years, particularly in more bilingual tribes. This was because increased proficiency made it possible for the students to complete all of the work in less time. Upon completion of first-year and first-year-advanced material, students entered second year, which maintained a full Spanish curriculum except for reading and some explanations in the vernacular.

Explanation of items numbered in Table 7.3.:

(1) *Religion.* Religion is a part of the regular school curriculum throughout Peru.

(2) *Reading.* Several *reading-readiness* programs have been tried, some with more success than others:

- FLANNELGRAPHS. An effective use of flannelgraphs introduced reading in the early days of the bilingual school system. A few schools still retain the method, but in general, teachers were unable to keep the materials from being lost or destroyed, and the method fell into disuse (see figure 7.6, pp. 134–36).
- SCRAPBOOKS. These are helpful for learning picture recognition. However, they must be supplied from the "outside" as there is no source of pictures in the native communities. Also, it is hard to find pictures that can be recognized by the indigenous child who has had no contact with the world beyond his village. If made, these books need to be very sturdy in order to withstand hard handling. Cloth books, sewn together and with edges pinked with pinking shears, have held up well.
- WORKBOOKS. In 1968, the workbook *Look, Think and Do* was published and has been effective in teaching picture recognition and the recognition of items in the categories "same" and "different." This book is not very large and

therefore not prohibitively expensive (see figure 7.7 for sample pages).

A similar kind of prereader is now planned in order to complete prereading instruction more effectively.

- COMBINATIONS OF THE ABOVE seem to have been the most successful.

* * * * *

The new reading methods introduced since 1972 have yielded textbooks based on key sentences, which are then analyzed and the words and syllables used to build up other phrases. The story content serves to teach moral and social values. With the experience gained over the years, the books now being produced promise to be effective (see figure 7.8).

(3) *Arithmetic* (see also chapter 6). Readiness was originally taught with picture cards and a flannelgraph board (see figure 7.9). However, teachers experienced much difficulty in keeping these materials because of environmental problems such as wind, rain, and insects. Textbook *Math No. 1* was sufficient for language groups with a well-developed indigenous number system. However, several languages without such a system needed extra help. In 1969 a large workbook, *Let's Count*, was published and proved effective. However, since an expendable book is expensive, another program was developed in 1976 which relies on objects available to the native teachers such as sticks, stones, nuts, etc. (see figure 7.10). In early 1978, another beginning math text was developed incorporating the concepts of modern math with the methods developed in 1976. This book was planned for testing in the Aguaruna schools during 1978 (see figure 7.11).

(4) *Writing* (see also chapter 6). Beginning in 1975, writing books have been gradually eliminated by including the writing lesson at the bottom of each page in the reading books. Learning has proved more effective when, day by day, reading is reinforced by writing. However, the progression listed in the Summary Chart is still used for the introduction of material. Currently, cursive writing begins in the third year of school.

(5) *Oral Spanish* (see chapter 6). In 1971, a revised Oral Spanish course was developed on the basis of previous experience.

Book One, a teacher's guide, contained useful dialogues which were to be memorized and acted out by the students. Tape recordings aided pronunciation. The results observed were good since the dialogues provided monolinguals with both the vocabulary and the confidence needed to approach the Spanish speaker, while at the same time enabling them to speak in Spanish about many facets of their daily life. Students finished the course in one to two school years, depending on the degree of bilingualism existing in their community.

However, it was difficult for the teachers to keep the tape players functioning in the adverse jungle conditions and to replenish their supply of batteries regularly. (Bulk quantities deteriorated before being used.) Because of this, the tape recordings, in most cases, fell into disuse. Nevertheless, even without them, the course has produced the best results of any tested thus far.

In 1978, the book was restructured to conform to the format of the educational reform (see figure 7.12).

(6) *Spanish reading.* This course was discontinued in Transition 2 as the beginning books went out of print. Editions of the books used in Transition 3 and first year subsequently were also exhausted. With the program for writing new materials delayed because of changes in the educational system, a great gap developed in the Spanish reading program.

In 1978, a new Spanish reader was prepared for testing. Based on an interesting story restated in many ways to assure thorough teaching, it is designed to effect the transfer of reading techniques learned first in the vernacular language to the reading of Spanish, while at the same time furthering the student's knowledge of Spanish. Other features include the presentation of syllables by "families" and a coordinated writing lesson with dictation. Comprehension is emphasized by requiring the student to translate each sentence into his own language as well as to answer a series of questions about the story. To facilitate teaching, the same two-page model is used throughout the book (see figure 7.13). This book is designed for the third year of school, after the techniques of reading and writing have been thoroughly established in the mother tongue. A series of follow-up books is also planned.

(7) *Hygiene.* A series of health books with large illustrations and simple explanations teaches about disease, microbes, parasites, tuberculosis, the building of latrines, and preventive medicine (see figure 7.14). Many groups also use hygiene books as advanced readers.

(8)*Manual arts.* The teacher, or another adult, teaches arrow making, spinning, pottery making, etc. in order to include the native arts and crafts as part of the school curriculum.

(9)*School garden.* Working together with the teacher, the children learn both to plant fields with cash crops and to beautify the school yard with ornamental plants. The cash crops are generally used to finance school needs, such as textbooks or clothing for the school children.

In recent years, under the educational reform, manual arts and the school garden have been combined with other community-oriented projects in a course called Preparation for Work, which corresponds to a vocational training course.

(10) *Physical Education.* Sports, games, and exercises learned in the teacher-training courses form the basis for the activities of this course.

(11) *Music, Art.* Lack of a textbook for these subjects has handicapped the teachers. A simple teachers' guide needs to be devised if these subjects are to be taught with a successful balance between vernacular and prestige cultures.

(12) *Nature and Social Studies* (see chapter 6).

Administration

As delineated in chapter 6, the bilingual schools began as a very small experiment overseen by the Director of Rural Education from his Ministry of Education office in the capital city of Lima. And while he made the major decisions, the responsibility for daily operations was delegated to on-the-spot representatives.

The experiment grew until twenty years later, the bilingual education system of the jungle had become a large program with its administration centralized on a Ministry of Education campus in the heart of the jungle. The Coordinator of Bilingual Education, with his staff of office workers and supervisors, carried full responsibility for the program, under the authority of the Director of Elementary Education in Lima (see chapter 6). This was in keeping with the nationally centralized system of education.

A number of benefits accrued to the bilingual education program as a result of this organizational structure. Clear delegation of authority permitted the Coordinator to handle administrative matters and/or problems promptly; there was freedom to adapt requirements, textbooks, and curriculum to the specialized situation; supervision was carried out by persons familiar both with the bilingual program and with the native cultures; pressure was not exerted upon native teachers to conform to norms established for Spanish-speaking schools; and a sense of solidarity was fostered among the jungle peoples.

In 1972, the educational system of the country was decentralized with the hope of providing more adaptability to regional needs. Six large educational regions were established, each headed by a director who was responsible for handling all administration, finances, and pedagogy of his area, as well as the preparation of texts and materials. Regions were subdivided into zones, and zones into districts. The local district controlled all the schools within its geographic area.

The decision to decentralize the educational system automatically decentralized the bilingual school system, cutting into sections a program which had been operated as one homogeneous unit and which depended, to a considerable extent, upon that kind of reinforcement for its continued success. The central office staff, over a period of time, was absorbed into the nearest zonal office. The village schools came under the jurisdiction of the district nearest to them, and thus were assigned to some thirty-four districts scattered over the vast jungle region.

Many zone and district directors demonstrated real concern for the bilingual schools, sought to understand their problems, and attempted to provide freedom for adaptations to their special needs. Other administrators found difficulty in understanding a type of school so different from the majority, with teachers so minimally trained. Since, in general, administrators received little orientation as to the goals and methods of the bilingual system, pressure was exerted upon many bilingual teachers to conform to the program designed for monolingual Spanish-speaking students. As supplies of vernacular and bilingual textbooks were exhausted, and as new curriculum, teaching methods, and statistical records were introduced without adaptations for the bilingual situation, many teachers stopped using the mother tongue in the classroom and began to teach entirely from Spanish textbooks. Usually, in these cases, the teaching of Spanish as a second language also fell into disuse, since Spanish was now the major language of the classroom and it was reasoned that the students would have sufficient exposure to it.

Some schools managed to continue with a degree of success; however, as time passed, parents from many vernacular groups complained that their children no longer learned to read, write, and compute. Teachers reported that their own sons and daughters were finishing four or five years of school without having mastered the material formerly taught in two or three years. But since there was no longer a central office nor a coordinator to whom the teachers might turn with these problems, there seemed to be no solution. One conclusion which has been drawn from the experience is that programs of this nature need to be given special attention and treatment within the national school system.

In May 1978, the Peruvian Minister of Education sent a high-level commission to the jungle to draw up a plan whereby the bilingual schools could again receive the special administrative assistance needed to make them function successfully. Although it was envisioned that cooperation and coordination should still be maintained with the district offices, the commission recommended that a central office be reestablished, that it be assigned the responsibility of supervision and textbook and curriculum preparation, that teacher training be given new emphasis, and that a long-range objective be the training of experienced bilingual teachers to assume all administrative and technical responsibilities for the program.

As of this writing, unforeseen difficulties have prevented the plan from being implemented. However, given Peru's history of concern for her vernacular-speaking peoples,[10] there is reason to expect that continued efforts will be made to provide tribal groups with effective bilingual education.

CONCLUSION

One encouraging result of the efforts made to adjust methods and materials to the special needs of the jungle situation has been a steady improvement in the quality of the program. Although at first some teachers were barely literate, many of them have now finished high school. As their academic level has improved, they have been able to teach more creatively. As a result, the students trained in the schools have become increasingly literate, bilingual, and aware of their place in the world. Entrance requirements for the teacher-training course have been steadily increased as more qualified candidates graduated from the bilingual primary program. It is now the exception rather than the rule to accept a barely literate candidate for teacher training, although such exceptions still need to be made for teacher candidates from language groups for which an alphabet has only recently been formulated.

As the curriculum improved, an increasing number of pupils from bilingual schools has moved on to vocational training and higher education. In communities where there is a fair level of literacy as a result of the bilingual school program, children now enter school with a much larger percentage of established prereading concepts than was formerly the case.

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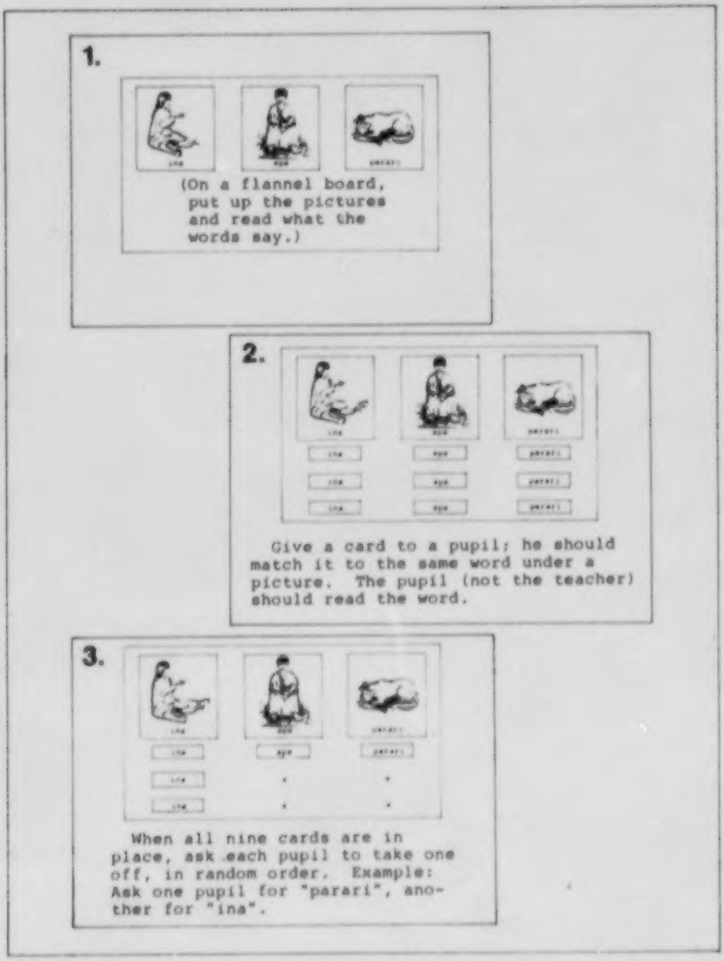
[10] See chapter 1 and Appendixes A and B of this volume as well as Sydney R. Grant, "Peruvian Language Policy Towards Speakers of Indigenous Tongues." (Paper presented at the Annual Meeting of the Comparative and International Education Society, 1974.)

These trends, trends which we had hoped to see, were evidenced through 1971, and progress will, no doubt, continue to be evidenced as the problems connected with decentralization are solved.



(On a flannel board, put up the pictures and read what the words say.)

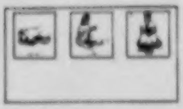
Give a card to a pupil; he should match it to the same word under a picture. The pupil (not the teacher) should read the word.

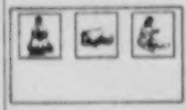
When all nine cards are in place, ask each pupil to take one off, in random order. Example: Ask one pupil for "parari", another for "ina".

Figure 7.6. Using the flannelgraph for reading readiness.

4.

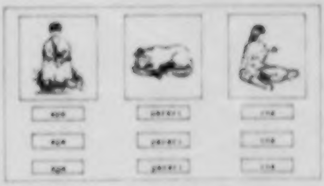
Use two boards. Place the pictures with words on one and the pictures without words on the other.



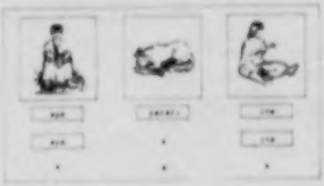


Give the cards to the pupils. They should find the word under a picture and then place their card under the matching picture where there is no word.

5.



6.



Same as for number 3.

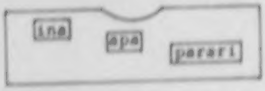
7 Turn over the pictures with words and give the cards to the pupils. They should place them under the correct picture on the other board.

8 If the pupil forgets, have him turn over the pictures which have words in order to check his word with the words under the picture.

9 Same as for numbers 3 and 6.

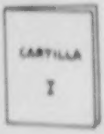
10 Turn the cards over and ask the pupils to take one at a time and read it. As each takes his card, ask him, "What does it say?"

11

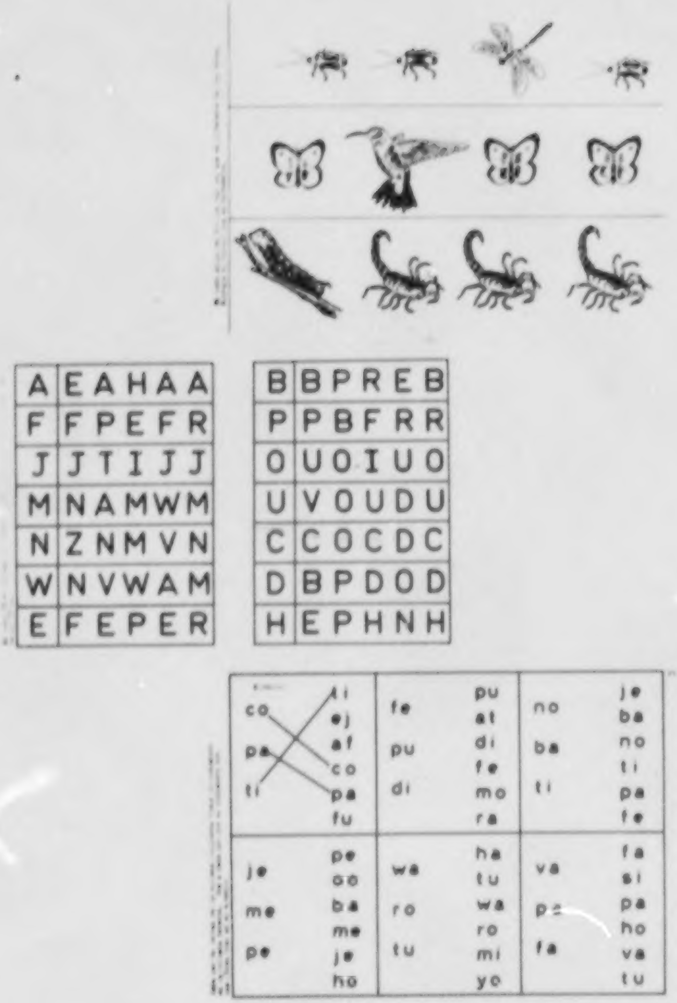


When each pupil has a card in his hand, show him the envelopes for three words. Ask the students to place their cards in the envelopes which match their words.

12



Read these three words in the Primer.

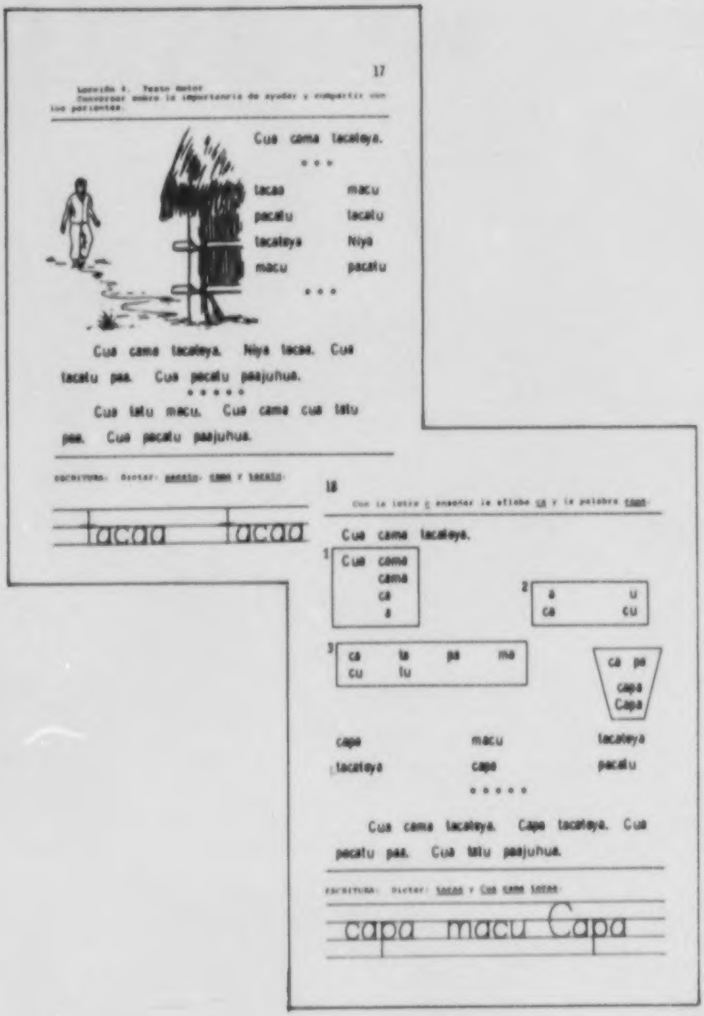


A	E A H A A
F	F P E F R
J	J T I J J
M	N A M W M
N	Z N M V N
W	N V W A M
E	F E P E R

B	B P R E B
P	P B F R R
O	U O I U O
U	V O U D U
C	C O C D C
D	B P D O D
H	E P H N H

co pa ti	ti ej af co pa fu	fe pu di	pu at di fe mo ra	no ba ti	je ba no ti pa fe
je me pe	pe oo ba me je ho	wa ro tu	ha tu wa ro mi yo	va pa fa	fa si pa ho va tu

Figure 7.7.
Sample pages from the preprimer *Look, Think and Do*.



17

Cua cama tacaleya.

• • •

tacaa macu
pacatu tacatu
tacaleya Niya
macu pacatu

• • •

Cua cama tacaleya. Niya tacaa. Cua tacatu paa. Cua pacatu paajuhua.

• • • • •

Cua tatu macu. Cua cama cua tatu paa. Cua pacatu paajuhua.

tacaa tacaa

18

Cua cama tacaleya.

1 Cua cama
cama
ca
a

2 a u
ca cu

3 ca ta pa ma
cu tu

ca pa
capa
Capa

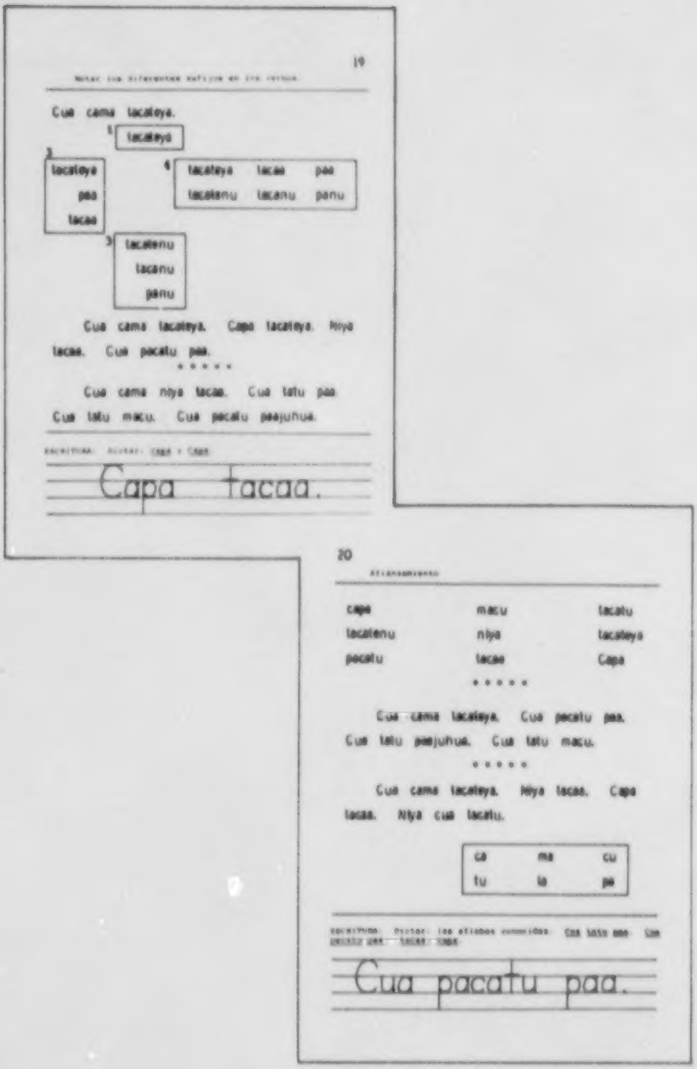
capa macu tacaleya
tacaleya capa pacatu

• • • • •

Cua cama tacaleya. Capa tacaleya. Cua pacatu paa. Cua tatu paajuhua.

capa macu Capa

Figure 7.8. Sample pages from the first book of the basic primer series in the Arabela language.



19

Notar los diferentes sufijos en los verbos.

Cua cama tacateya.

1 tacateya

2 tacateya
paa
tacaa

4 tacateya tacaa paa
tacatenu tacanu panu

3 tacatenu
tacanu
panu

Cua cama tacateya. Capa tacateya. Niya tacaa. Cua pacatu paa.

• • • • •

Cua cama niya tacaa. Cua tatu paa. Cua tatu macu. Cua pacatu paajuhua.

ESCRITURA: Dictar: capa y Capa

Capa tacaa.

20

Afianzamiento

capa macu tacatu
tacatenu niya tacateya
pacatu tacaa Capa

• • • • •

Cua cama tacateya. Cua pacatu paa. Cua tatu paajuhua. Cua tatu macu.

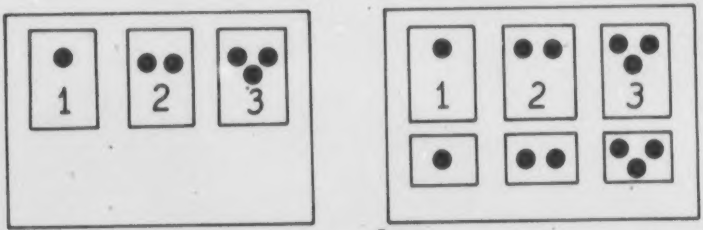
• • • • •

Cua cama tacateya. Niya tacaa. Capa tacaa. Niya cua tacatu.

ca ma cu
tu ta pa

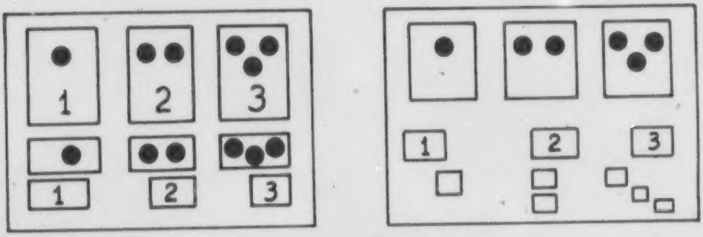
ESCRITURA: Dictar las sílabas conocidas. Cua tatu paa. Cua pacatu paa. tacaa. Capa.

Cua pacatu paa.



1 Place the pink key cards on the flannelboard. Count and read the numbers 1, 2 and 3.

2 Give the pupils the blue pattern cards. Have each count his card and place it beneath the matching number.



3

Mix the blue pattern cards with the number cards. Give one to each pupil and ask him what number he has. He should place his pattern card correctly on the flannelboard.

……

Next ask him to take off the board a pattern card to match the number he still holds in his hand. (Be sure to do this drill in random order.)

4 Mix the pattern cards. Give them to a pupil and ask him to place them on the board in order. Do the same with the number cards.

……

Show the numberless key cards to the pupil, asking him to place the correct quantities beneath each card.

……

Finally, collect the cards as in Number 3.

Figure 7.9. Using the flannelgraph for arithmetic readiness.

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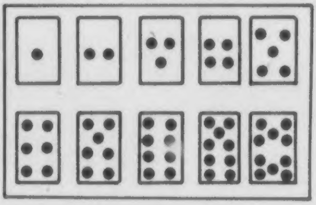
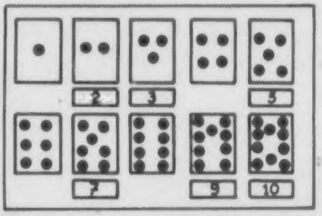
5 - Teach the numbers 4 and 5 with the same steps as for 1 - 3.

6 - Teach the numbers 6, 7 and 8 with the same steps.

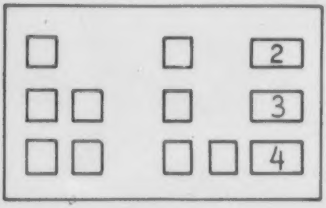
7 - Teach numbers 9 and 10 with the same method.



8 Before beginning BOOK No. 2, give each pupil the following test:
Mix the ten numberless key cards and have the pupil arrange them on the flannelboard in order.

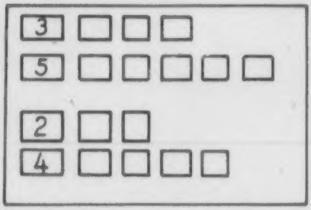


9 Mix the numberless key cards with the number cards and have the pupil place the numbers beneath the correct card.



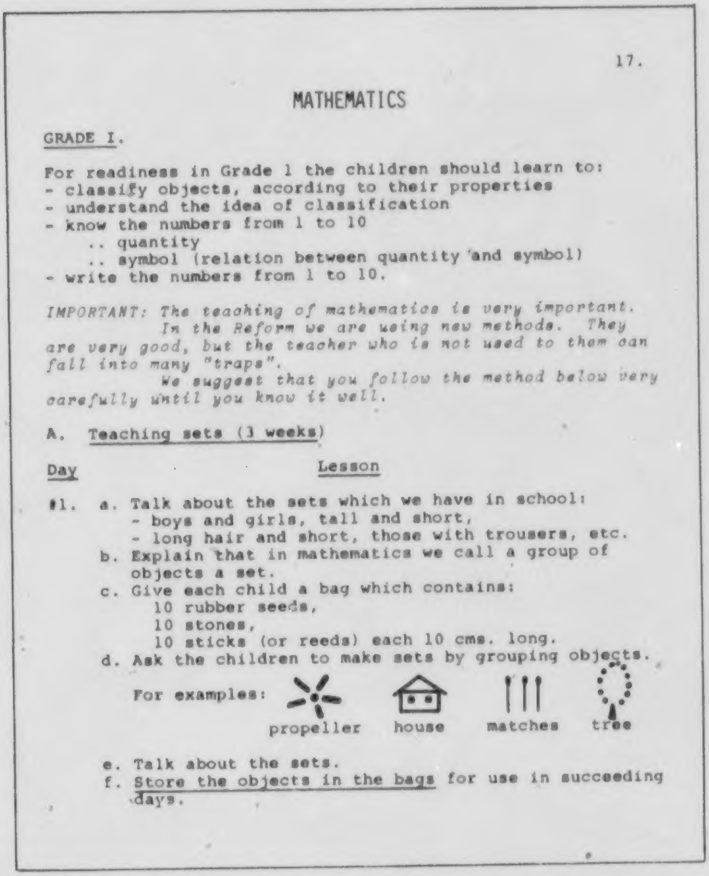
10 BOOK No. 2:

Demonstrate addition and subtraction combinations on the flannel board, using the blank pink and blue cards.



11 BOOK No. 3

For pages 2 and 28 of this book, also use the blank cards.



17.

MATHEMATICS

GRADE I.

For readiness in Grade 1 the children should learn to:
- classify objects, according to their properties
- understand the idea of classification
- know the numbers from 1 to 10
  .. quantity
  .. symbol (relation between quantity and symbol)
- write the numbers from 1 to 10.

IMPORTANT: The teaching of mathematics is very important. In the Reform we are using new methods. They are very good, but the teacher who is not used to them can fall into many "traps".

We suggest that you follow the method below very carefully until you know it well.

A. Teaching sets (3 weeks)

Day — Lesson

#1. a. Talk about the sets which we have in school:
- boys and girls, tall and short,
- long hair and short, those with trousers, etc.

b. Explain that in mathematics we call a group of objects a set.

c. Give each child a bag which contains:
10 rubber seeds,
10 stones,
10 sticks (or reeds) each 10 cms. long.

d. Ask the children to make sets by grouping objects.

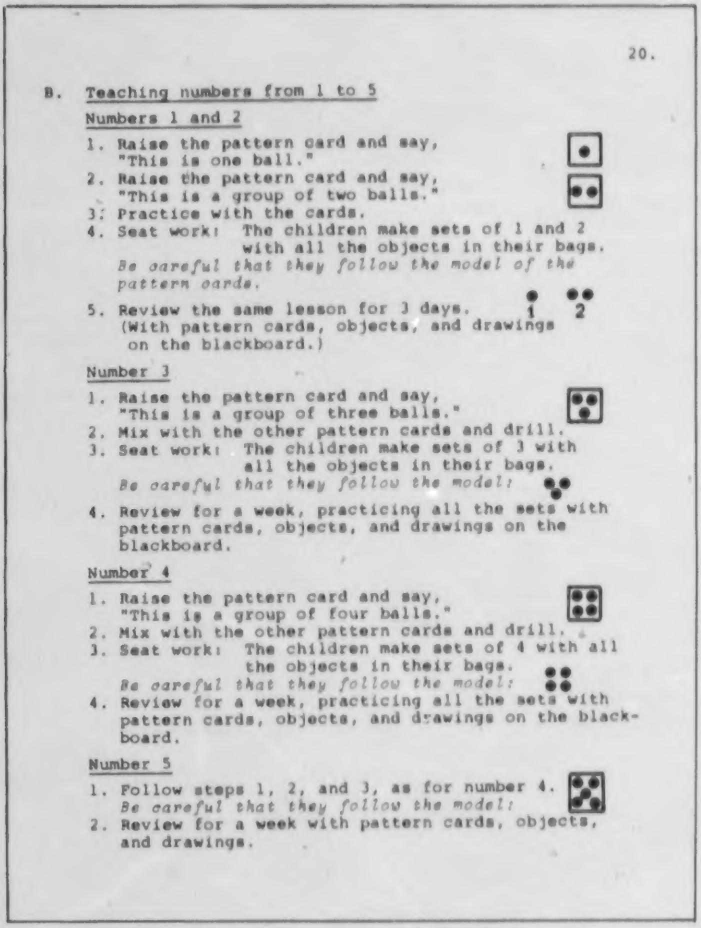
For examples:

propeller house matches tree

e. Talk about the sets.

f. Store the objects in the bags for use in succeeding days.

Figure 7.10. Sample pages from the Teacher's Guide for Mathematics.



20.

B. Teaching numbers from 1 to 5

Numbers 1 and 2

1. Raise the pattern card and say, "This is one ball." ●
2. Raise the pattern card and say, "This is a group of two balls." ●●
3. Practice with the cards.
4. Seat work: The children make sets of 1 and 2 with all the objects in their bags.
   Be careful that they follow the model of the pattern cards.
5. Review the same lesson for 3 days. (With pattern cards, objects, and drawings on the blackboard.) ● 1 ●● 2

Number 3

1. Raise the pattern card and say, "This is a group of three balls."
2. Mix with the other pattern cards and drill.
3. Seat work: The children make sets of 3 with all the objects in their bags.
   Be careful that they follow the model:
4. Review for a week, practicing all the sets with pattern cards, objects, and drawings on the blackboard.

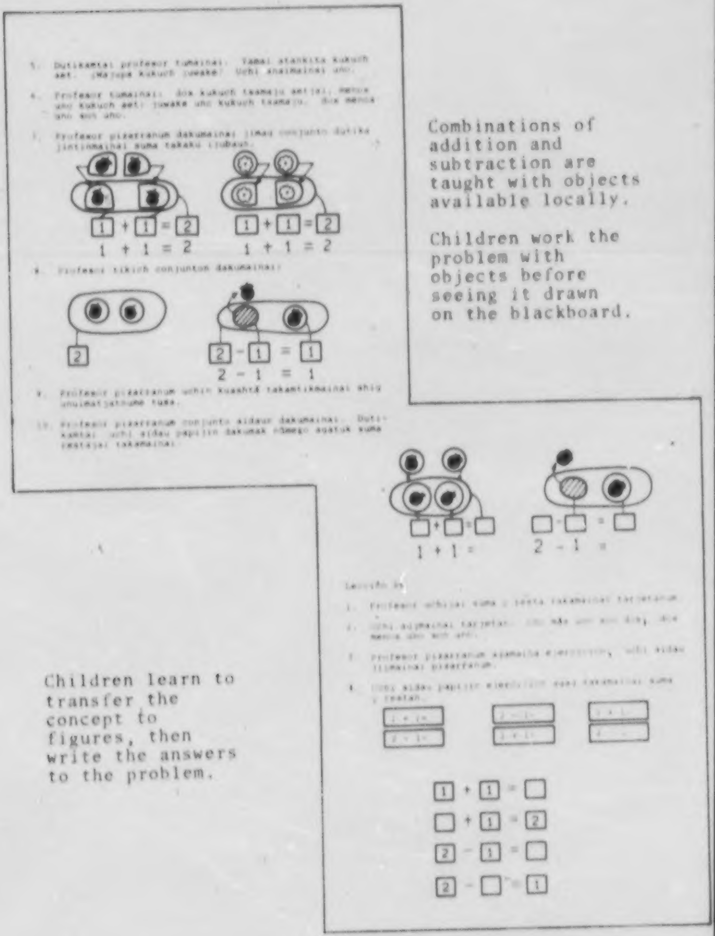
Number 4

1. Raise the pattern card and say, "This is a group of four balls."
2. Mix with the other pattern cards and drill.
3. Seat work: The children make sets of 4 with all the objects in their bags.
   Be careful that they follow the model:
4. Review for a week, practicing all the sets with pattern cards, objects, and drawings on the blackboard.

Number 5

1. Follow steps 1, 2, and 3, as for number 4.
   Be careful that they follow the model:
2. Review for a week with pattern cards, objects, and drawings.

Sample pages from a beginning mathematics textbook developed in 1978 in the Aguaruna language by Gerardo Wipio.


1 + 1 = 2
1 + 1 = 2
2
2 − 1 = 1
1 + 1 =
2 − 1 =

Combinations of addition and subtraction are taught with objects available locally.

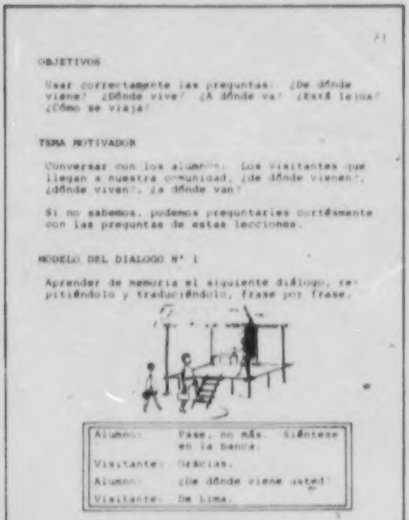
Children work the problem with objects before seeing it drawn on the blackboard.

Children learn to transfer the concept to figures, then write the answers to the problem.

Figure 7.11. Sample pages from mathematics textbook in Aguaruna prepared by Gerardo Wipio in 1978.

The first Oral Spanish Course contains eight units each one of which includes:

- A few classroom commands.
- A new song.
- The objectives of the unit.
- A theme for discussion.
- Key dialogues.
- Variations of the dialogues, with indications as to the various situations in which they apply.
- Unit review.
- Test questions.
- Vocabulary of new terms (for teacher's use only).



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OBJETIVOS

Usar correctamente las preguntas: ¿De dónde viene? ¿Dónde vive? ¿A dónde va? ¿Está lejos? ¿Cómo se viaja?

TEMA MOTIVADOR

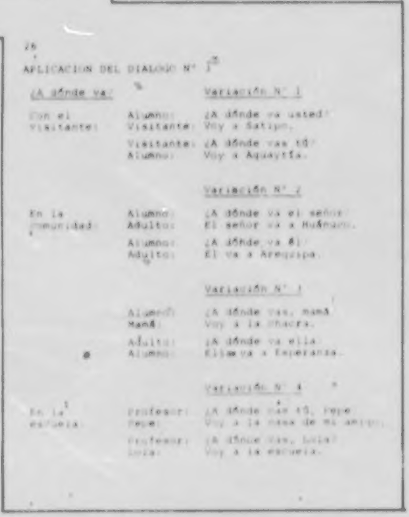
Conversar con los alumnos: Los visitantes que llegan a nuestra comunidad, ¿de dónde vienen?, ¿dónde viven?, ¿a dónde van?

Si no sabemos, podemos preguntarles cortésmente con las preguntas de estas lecciones.

MODELO DEL DIALOGO Nº 1

Aprender de memoria el siguiente diálogo, repitiéndolo y traduciéndolo, frase por frase.

Alumno: Pase, no más. Siéntese en la banca.
Visitante: Gracias.
Alumno: ¿De dónde viene usted?
Visitante: De Lima.



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APLICACION DEL DIALOGO Nº 1

¿A dónde va?

Variación Nº 1

Con el visitante:
Alumno: ¿A dónde va usted?
Visitante: Voy a Satipo.
Visitante: ¿A dónde vas tú?
Alumno: Voy a Aguaytía.

Variación Nº 2

En la comunidad:
Alumno: ¿A dónde va el señor?
Adulto: El señor va a Huánuco.
Alumno: ¿A dónde va él?
Adulto: El va a Arequipa.

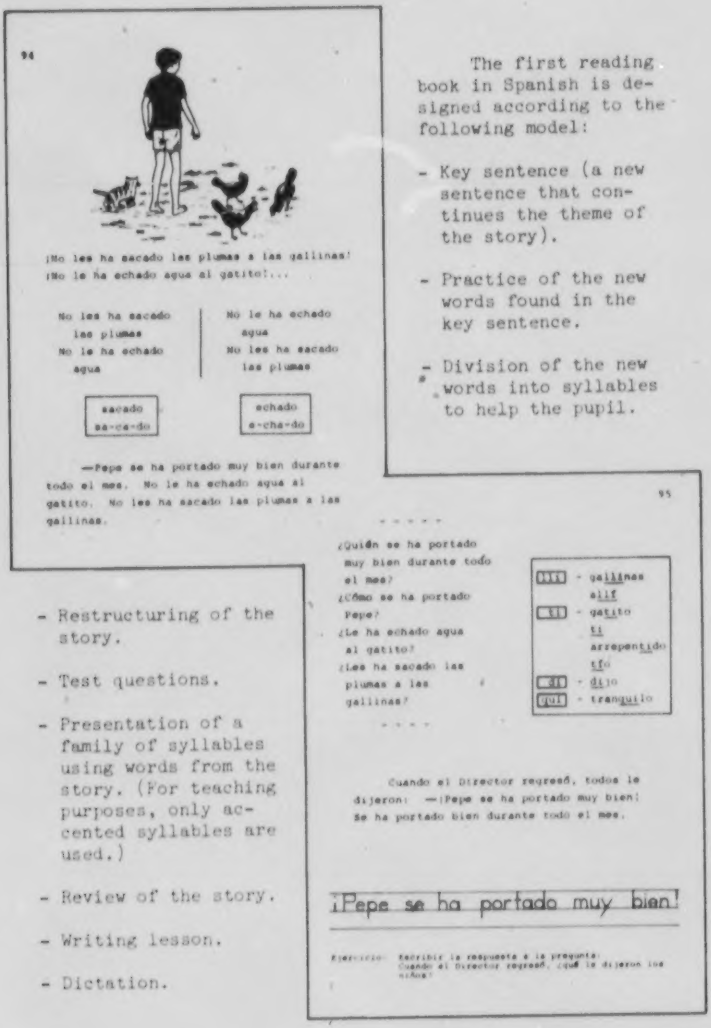
Variación Nº 3

Alumno: ¿A dónde vas, mamá?
Mamá: Voy a la chacra.
Adulto: ¿A dónde va ella?
Alumno: Ella va a Esperanza.

Variación Nº 4

En la escuela:
Profesor: ¿A dónde vas tú, Pepe?
Pepe: Voy a la casa de mi amigo.
Profesor: ¿A dónde vas, Lola?
Lola: Voy a la escuela.

Figure 7.12. Sample pages from textbook in Oral Spanish.



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¡No les ha sacado las plumas a las gallinas!
¡No le ha echado agua al gatito!...

No les ha sacado las plumas No le ha echado agua	No le ha echado agua No les ha sacado las plumas

sacado
sa-ca-do

echado
e-cha-do

—Pepe se ha portado muy bien durante todo el mes. No le ha echado agua al gatito. No les ha sacado las plumas a las gallinas.

The first reading book in Spanish is designed according to the following model:

- Key sentence (a new sentence that continues the theme of the story).
- Practice of the new words found in the key sentence.
- Division of the new words into syllables to help the pupil.
- Restructuring of the story.
- Test questions.
- Presentation of a family of syllables using words from the story. (For teaching purposes, only accented syllables are used.)
- Review of the story.
- Writing lesson.
- Dictation.

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- - - - -

¿Quién se ha portado muy bien durante todo el mes?
¿Cómo se ha portado Pepe?
¿Le ha echado agua al gatito?
¿Les ha sacado las plumas a las gallinas?

- - - -

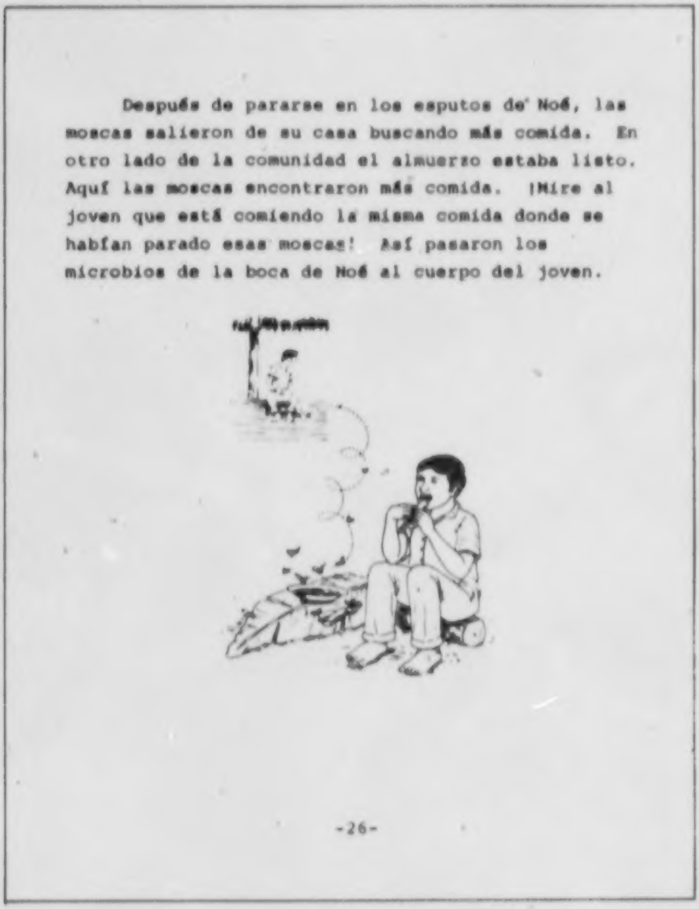
lli - gallinas
allí
ti - gatito
ti
arrepentido
tío
di - dijo
qui - tranquilo

Cuando el Director regresó, todos le dijeron: —¡Pepe se ha portado muy bien! Se ha portado bien durante todo el mes.

¡Pepe se ha portado muy bien!

Ejercicio: Escribir la respuesta a la pregunta:
Cuando el Director regresó, ¿qué le dijeron los niños?

Figure 7.13. Sample pages from the Spanish Reading textbook.



Después de pararse en los esputos de Noé, las moscas salieron de su casa buscando más comida. En otro lado de la comunidad el almuerzo estaba listo. Aquí las moscas encontraron más comida. ¡Mire al joven que está comiendo la misma comida donde se habían parado esas moscas! Así pasaron los microbios de la boca de Noé al cuerpo del joven.

-26-

Figure 7.14. Sample page from the health manual, *The Flies*.

[illegible]

[illegible]

8

THE DEVELOPMENT OF VERNACULAR SPEAKERS AS SUPERVISORS

Martha A. Jakway

As mentioned in the overview in chapter 2, in the early years of the bilingual school program in Peru, members of SIL were asked by the Ministry of Education to supervise the village schools in the language with which they were working. One of the goals of this supervisory program was to train vernacular speakers to assume the supervisory role so that the program could function independently. In the material that follows, the selection and training of supervisors among the Aguaruna of northern Peru is discussed. It serves as an example of how such an indigenous supervisory program can be developed.

In 1965 after a preliminary year visiting the Aguaruna schools, I, as an educator, was requested to supervise the bilingual education program among the Aguaruna. The program was established in 1953, and had been supervised previously by the SIL linguists. A group of six part-time Aguaruna inspectors had been appointed for a while during 1964, but they had ceased operations by 1965. At the time of my assignment, there were eighty Aguaruna teachers working in about forty bilingual schools, which were located not only on four principal rivers, but also in many isolated areas accessible only on foot, some requiring as many as three days of hiking over difficult jungle trails.

The work of the educational supervisor at the time of my assignment consisted in furthering and developing the existing program in the following areas:

- SCHOOL ADMINISTRATION (helping the teachers fill out various school documents required by the government, such as registers, attendance records, etc.).
- TEACHER PLACEMENT (in consultation with the teachers involved).
- GOAL SETTING, SKILL BUILDING, AND CURRICULUM DEVELOPMENT (setting goals to be reached and skills to be acquired each month at each grade level, refining the curriculum to achieve these goals and skills, and guiding the teacher in following the curriculum).
- METHODOLOGY (determining the best teaching methods for the existing educational materials and guiding the teacher in using them. This also included supervising individual teachers in their classrooms and giving on-the-job training, as well as developing courses in teaching methods for the teacher-training course).
- PREPARATION OF MATERIALS (preparing additional school materials as needed).
- DEVELOPMENT OF SCHOOL PLANT (checking the adequacy of the school plant being used in each village and helping the teacher improve it).
- TEACHERS' CONFERENCES (helping in the planning and guiding of the teachers' conferences which were held annually midway through the school year: for details, see chapter 9).

The best way for the educational worker to become quickly oriented to the existing situation seemed to be to evaluate the program in progress while simultaneously helping the teachers in their areas of need. To do this, the goals to be reached and skills to be achieved by the students at each grade level were listed (see chapter 7), and tests were developed to ascertain to what degree the goals were being attained (see figure 8.1).

In 1966 and 1967 I was able to evaluate and to help twenty-three teachers during the school year, working about a week with each one. At this rate it would take four years to reach each of the eighty teachers just once. Besides, not much help can be given a teacher during a week's time every four years, and it thus became obvious that the task was impossible.

Since one of the goals of the supervisory program was for it eventually to become indigenous (see chapter 21 for more detail), it was providential that the factors necessary for establishing such a program had come together by this time. There were several excellent Aguaruna bilingual teachers who, with training, had the potential to become good school supervisors, and in 1967 the Peruvian Coordinator of Bilingual Education named ten Aguaruna teachers to supervisory positions, and a list of responsibilities was drawn up for them (see figure 8.2).

Each of the ten supervisors was assigned to the four or five schools nearest to his teaching post (see figure 8.3). They served only as part-time supervisors, continuing to teach their own classes. However, their supervisory duties stipulated their making occasional trips to the schools under their supervision, leaving a substitute teacher in charge of their own classrooms. Each supervisor was to spend at least a day a year with each of the eight teachers under his jurisdiction. In addition, a number of days were necessary for travel to and from the schools to be supervised.

During his supervisory visits, the supervisor was to oversee school administration, management of school documentation, provision and distribution of school supplies, achievement level of students, effectiveness of teaching methods, use of daily and monthly lesson plans, and teacher-community interaction. He was also to fill out a report form on each teacher during the visit and turn it in to his superior, the Coordinator of Bilingual Education, along with an expense report.

There were many advantages to having a vernacular speaker with teaching experience as supervisor instead of a member of SIL. Instead of trying to train eighty teachers individually, the educator could now concentrate on training the ten supervisors, who in turn could then supervise a few teachers each. The Aguaruna supervisor would live in the area throughout the school year and be more available for consultation. Having had the same type of training and teaching experience himself, he would be more aware of the problems his fellow teacher was facing and would have a greater store of ideas for their solution. Being from the same language and culture, both supervisor and teacher would be more likely to attain mutual understanding in their interactions. A more positive tribal self-image would develop as the Aguaruna teachers displayed their ability to fulfill their supervisory role successfully.

The bilingual teachers found the services of the supervisors very helpful, but one day a year was too short a time for adequate help. Thus, several teachers requested that the supervisors be released from their classroom duties in order to devote their full time to supervision. Meanwhile, the students in the teaching supervisor's classes, and their parents, were complaining because the teacher was away from his class for part of the year and not doing that job adequately either. It was therefore agreed that the best solution to these problems was to have fewer supervisors working on a full-time basis.

In 1968, four full-time Aguaruna supervisors were chosen from among the ten teaching supervisors. In addition to the requirement that the candidate be a native speaker of the vernacular language, the following guidelines were drawn up and used in selection:

ACADEMIC

- Has had at least fourth year of elementary school.
- Has had at least one summer in the teacher training course.
- Performs well in relation to other teachers of his vernacular group in academic and pedagogy classes.
- Has a working knowledge of Spanish adequate to: (a) fill out the supervisor forms; (b) read supervisor's manual; (c) converse with school authorities; (d) converse with Spanish speakers in the area concerning the purpose of bilingual schools, etc.
- Speaks the vernacular.

VOCATIONAL

- Has taught at least one year, preferably longer.
- Is one of the more outstanding teachers (as observed in the tribal situation).
- Demonstrates originality and initiative in his own teaching.

- Shows good judgment in the use of money and materials.

Social

- Commands the respect of leaders of the community and other teachers.
- Has leadership qualities.
- Shows tactfulness in working with others. Is eager to help rather than boss and criticize.

Emotional

- Is one of the more stable teachers.

Moral

- Has a moral life which is respected in his own community.

Orientation

- Has had or will have adequate orientation as to the supervisor's responsibilities.

In additon to their former supervisory responsibilities, the now full-time supervisors were to meet with parents and community leaders, orient teachers to new techniques, and visit and evaluate the need for new schools in communities filing petitions, as well as help in the preparation of new books and materials.

The first formal supervisors' orientation was held among the Aguaruna in 1968.[1] By this time, there were 100 teachers and sixty-five schools. A supervision manual[2] and a new supervision report form were designed. The supervisor was expected to make routine visits to each school twice annually, one week the first time and three days the second time. While there he was to check the school documents—registers, report cards, lesson plans, etc., and to help the teacher with any problems he was having in the area of documentation.

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[1] Early in 1969, the Shipibo, the Amuesha, the Campa, the Ticuna, and the Huambisa also adopted the indigenous supervisory program, and their candidates were trained at the Yarinacocha center. There were no Aguaruna in this group since their training was being handled in their own region.

The centralized course made clear that the needs and levels of abilities in each tribal supervision program were so different that in the future a supervisors' orientation course geared to each tribal area would prove more valuable than a general course.

[2] This manual may be purchased in microfiche or in printout form by asking for *Supervisor's Manual*, Material Didáctico en Preparación No. 31, 1973 (ILV) from the Centro Nacional de Documentación e Información Educacional, Casilla 1156, Lima 100, Peru.

The supervisor was also responsible for checking the physical plant and helping the teacher improve it. This might include such activities as giving help in measuring seats and tables and adjusting them so they were the right size for the children, repairing leaky roofs and sagging walls, cutting out windows to provide adequate light, painting blackboards and adjusting them so they were the right height for student and teacher, and checking the books and noting shortages and excesses. (The supervisors maintained a book supply stored in barrels to distribute to teachers as they needed them.) He was also responsible for helping the teacher take an inventory and prepare a request for books for the coming school year (see figure 8.4).

Observing the teachers in the classroom, the supervisor was to list the steps used in the teaching of each subject and note any divergence from the suggested steps given in the supervision manual. On the basis of his notes, he was to discuss suggestions for improvement with the teacher at the end of the school day, remembering to compliment him on his strengths. This was also an opportune time to pass on good ideas he had observed in other classrooms during his travels. He was to examine students quietly and kindly when necessary. He was then to make the teacher aware of any deficiencies in the achievement levels of his students and suggest ideas for how they could be corrected. Students unable to work at their present grade level were moved to a level where they could achieve.

In addition to the tasks just mentioned, many of my former responsibilities were now assigned to the indigenous supervisors—duties such as visiting and orienting new teachers at the beginning of the school year, providing help requested by community leaders in the supervisor's assigned region, helping plan and supervise the annual teachers' conferences, teaching vernacular methods courses at the teacher-training course, and orienting teachers who had not attended the latest teacher-training course (in the areas of changes in administration, documents, or methods). The supervisors were also to visit villages that had requested new schools, meeting with the parents and collecting the following information: availability of house and garden for the teacher and provision of a school plant, number of school-age children for immediate enrollment as well as the number for potential enrollment in succeeding years, and number of parents who were willing to cooperate with the school.

After each supervision trip, the supervisor was to report all expenses in duplicate, attaching receipts for all expenditures (see figure 8.5).

If an educational official arrived in the supervisor's region, the supervisor was to assume the role of host to the official as well as to cooperate with him in every way possible.

Beginning in 1969, a month's Supervisors' Orientation Course was held each year in various locations. After this course, additional methodology was presented in one-month regional workshops held in each supervisor's area. These were to serve as in-service training programs for the area's supervisors and teachers. For the first two weeks of the workshop, the educational supervisor and the indigenous supervisor together attended a class taught by a teacher chosen to be the demonstration teacher for the workshop. They observed his classes and evaluated them in accordance with the steps listed in the supervision manual. The indigenous supervisor and educational supervisor met after class to discuss the strengths and weaknesses of the teacher's presentation as well as to formulate suggestions for improvement. Thereafter, the indigenous supervisor met with the teacher to pass these suggestions on to him. In subsequent classes the teacher attempted to put the new ideas into practice.

For the succeeding weeks, three or four others teaching the same grade level in other schools in the area were invited to join the workshop. From 7:00 a.m. to 12:30 p.m. they and the supervisor observed the demonstration teacher, noting the steps he used in teaching each subject, and then all attended an evaluation and discussion session guided by the supervisor from 2:30 to 4:30 p.m. At this point, the educational supervisor assumed the role of an observer and occasional consultant to the indigenous supervisor.

The workshop program achieved several ends. It gave the teacher an opportunity to see classes of his own level taught by someone else. It gave people teaching the same grade levels an opportunity to share ideas, successes, and failures and to discuss solutions to their problems. It also gave them an opportunity to see the methods they had learned in class put into operation and to analyze their effectiveness as they watched the class progress from day to day. And the supervisor had a chance to expose teachers to new methods and changes in school administration which would serve to update their operations. Both teachers and supervisors learned a great deal in these sessions and valued them enough to continue them when working independently.

Not only has the goal of indigenous supervision been accomplished, but also some of these supervisors have assumed even greater leadership roles in the national educational system of their country.

In 1969, Gerardo Wipio, a potential Aguaruna supervisor, began teaching some of the vernacular methods courses at the central teacher training course. The educational supervisor spent one to two hours daily preparing the materials for the lesson he would teach and an hour going over it with him. An additional two hours were spent carefully observing his teaching and later evaluating the class session with him.

Such a program of developing teacher-training course professors from among the indigenous supervisors seemed very time consuming initially, but over-all it was worth the time invested. It was apparent that care had to be taken to train the supervisor thoroughly and to gradually work him into taking full responsibility for such a course. At the same time the educational supervisor's responsibilities had to be gradually decreased as the trainee mastered a given area.

The experiment indicated that although the percentage might be small, there would be those from the native communities who were educationally prepared and could gain sufficient peer respect to assume the role of professor of the teacher-training course.

In succeeding years, Aguaruna supervisors served as professors of oral Spanish and teaching methods for all language groups during the teacher-training course and took complete responsibility for the special vernacular methods and practice teaching courses taught to the Aguaruna and Huambisa teachers.[3] They assumed responsibility for teacher placement within their own tribal areas, where they also directed supervisors' orientation courses, at first with the help of the educational supervisor, and later independently.

In 1970, the whole Aguaruna supervisory program was evaluated during the supervisors' orientation course. One of the major changes that resulted was a more streamlined supervision report form, as the initial one had proved somewhat long and time consuming (see figure 8.6).

In July 1971, three regional teachers' conferences were instituted to replace the traditional all-tribal teachers' conference (see chapter 9). Each supervisor planned and executed the conference for his region, while a head supervisor acted as coordinator and attended all three.

In 1972, a survey of two new areas of the tribe, with subsequent creation of new schools and placement of teachers, was carried out exclusively by the Aguaruna supervisors in coordination with Ministry of Education officials.

In 1973, a new form for supervisory planning, designed by Peruvian education officials, began to be turned in directly to Ministry of Education offices (see figure 8.7).

In 1974, when the three Aguaruna supervisors' area was reorganized into two decentralized districts by the national education system, a bilingual Aguaruna supervisor was retained as part of the staff of each office on a par with the Spanish-speaking staff. Other sections of the tribal area, decentralized later, also added Aguaruna and Huambisa supervisors to their office staffs.

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[3] Huambisa is a member of the Jivaroan language family closely related to Aguaruna.

In 1975, when the need was felt for specialists in bilingual education, two of the outstanding Aguaruna supervisors were named to the post, one in each of the two large district offices.

By 1976, the educational supervisor continued functioning only as a consultant, while Gerardo Wipio, now named Coordinator of Bilingual Education of his district education office, wrote experimental first- and second-grade reading and writing materials in Aguaruna, as well as a guidebook to accompany them. The materials were based on his own research work on the vocabulary of five- and six-year-olds—data gathered from his supervisory visits to the forty schools in his district. The national educational office provided the materials for the book, while the district cooperated in mimeographing them and in distributing them to the schools. Wipio trained the teachers of his district in the use of these materials and supervised them throughout the year. He revised the books late in 1976, and they were turned over to the Lima office of Bilingual Education, where they were approved and sent to be printed.

In the 1978 teacher-training course, with newly printed textbooks in hand, Gerardo Wipio oriented teachers from all the Aguaruna districts in the methodology to be used in teaching his new books, and the thousand books were distributed to the Aguaruna schools.

It has been gratifying to all concerned to have realized the goal of a functioning educational system for the Aguaruna with native supervisory leadership and direct tie-in to the national education system.

READING: TRANSITION 1

Cut from each primer 40 words introduced in that book. Paste them in columns of 10 in a notebook. Keep tests for each primer separate. Have each child read 20 words giving one point per word. Have each child read two different columns. Test on only the primer just completed, unless you have lots of time and small classes and want a more complete picture. Scores should be above 10.[4]

For example:

shinawai
sapi
ukurch
minau
paampa
aumakmi
jiincham
chigki
wamak
manchu

jempe
ayawai
chagkin
nanamui
shushui
tepawai
shaa
wajawai
jaanch
yusa

paantam
suku
chapi
ashi
iwan
senchi
nagki
uchi
sumakta
ete

minawai
patatui
kashai
kutag
washi
manchi
uwej
atash
eketui
pujau

READING: TRANSITION 2

1. Cut all the syllables and 40 words containing only those syllables, out of each syllable book and paste them in groups of 10 words and 10 syllables. Put different types of syllables in each column of 10 syllables. For example:

wai
pau
i
pa, etc.

jai
jau
tu
ju, etc.

kai
kau
ta
pi, etc.

---

[4] The Peruvian grade scale is based on 20, with grades of 11 or above considered passing.

Figure 8.1. Suggested tests for evaluating bilingual school pupils.

2. Tests for each syllable book should be kept separate. Test children on 10 syllables and 10 words from each syllable book read to date, giving one point for each correct word or syllable. For example:

jamaya
patu
tama
waka
etc.

wakata
yawa
wakaya
wakaju
etc.

yapa
tupaawai
aya
jima
etc.

jujuju
aju
kiiwi
yapu
etc.

READING: TRANSITION 3

1. Cut out about 40 more difficult words which appear in each T3 book. Test on 10 (5 points). For example:

iniastajime
katsekeenig
yunchmawai
dakumkamu
etc.

tagkujigkaih
iwajamuuchui
uwemchawai
wakeejutayi
etc.

wekaekumesh
atashnashkam
ekeemtutayi
kistianmagawai
etc.

2. Test on 10 syllables, a few chosen from each syllable book (5 points).

3. Choose a page which pupils have read from their books and note fluency. Mark with the following:

reads haltingly with many mistakes	(1 point),
reads smoothly with many mistakes	(2 points),
reads haltingly with few mistakes	(3 points),
reads smoothly with few mistakes	(4 points),
reads fluently	(5 points).

4. Ask each child one question on the page he has just read to check his comprehension (5 points).

WRITING: TRANSITION 1

Put phrases containing about 20 letters on board or paper for child to copy. Give 1 point for each letter well formed.

WRITING: TRANSITION 2

1. Have child write his complete name in cursive writing (5 points).

2. Choose one or two phrases of about 15 letters from the writing book and dictate to children.
   a. Correct punctuation mark (1 point).
   b. Words spelled right (1 point for each word up to 4 points).
   c. Letters correctly formed (1 point per letter up to 15 points).

WRITING: TRANSITION 3

1. Have child write 2 or 3 sentences about an animal he knows well (chicken, duck, tapir, etc.). (10 points depending on legibility.)

2. Dictate one phrase of about 9 letters and exclamation marks. This should be from their writing book.
   a. Exclamation marks (1 point).
   b. Each letter correctly formed (1 point for each letter up to 9 points).

ARITHMETIC: TRANSITION 1 - MATHEMATICS 1[5] - ORAL

Using a counting picture book, have children count the number of objects on a page and write that one number on a piece of paper or on the board. After you have had them count 3 different groups -- 1 small number, 1 medium, and 1 large, have them give you a certain number of pencils from a large group and write the number which represents it. Dictate the numbers up to 10 which the children have not yet written. Give 1 point for each number correctly written, 2 points for each picture correctly counted and each correct number of pencils given you. For example:

---

[5] All book titles have been translated from Spanish into English for the convenience of the reader.

Count the page which has frogs (8). Write the number.
Count the page which has otters (5). Write the number.
Count the page with turtles (2). Write 2.
Give me 6 pencils. Write 6.
Give me 10 pencils. Write 10.
Write 3, 9, 1, 4, 7.

Note very carefully those children who count but don't point to a different object each time. They don't know the meaning of counting. They probably don't understand one-to-one correspondence.

ARITHMETIC: TRANSITION 1 - MATHEMATICS 2 - ORAL

(1 point each)

1. If Sumpa has 6 books and Juan has 1, how many do they have all together?

2. If Maria has 7 books and gives 2 to Martha, how many does Maria have left?

$$\begin{array}{r}1\\+\underline{1}\end{array}\quad\begin{array}{r}1\\+\underline{3}\end{array}\quad\begin{array}{r}4\\+\underline{2}\end{array}\quad\begin{array}{r}6\\+\underline{2}\end{array}\quad\begin{array}{r}2\\+\underline{5}\end{array}\quad\begin{array}{r}4\\+\underline{3}\end{array}\quad\begin{array}{r}5\\+\underline{3}\end{array}\quad\begin{array}{r}3\\+\underline{3}\end{array}\quad\begin{array}{r}2\\+\underline{3}\end{array}$$

$$\begin{array}{r}2\\-\underline{1}\end{array}\quad\begin{array}{r}6\\-\underline{4}\end{array}\quad\begin{array}{r}5\\-\underline{4}\end{array}\quad\begin{array}{r}5\\-\underline{2}\end{array}\quad\begin{array}{r}7\\-\underline{4}\end{array}\quad\begin{array}{r}8\\-\underline{6}\end{array}\quad\begin{array}{r}8\\-\underline{4}\end{array}\quad\begin{array}{r}8\\-\underline{3}\end{array}\quad\begin{array}{r}6\\-\underline{1}\end{array}$$

ARITHMETIC: TRANSITION 2 - MATHEMATICS 3 - ORAL

(1 point each)

1. Draw a triangle on the board.
2. Draw a rectangle on the board.
3. Count to 20.
4. How many centavos are there in a sol (Peruvian monetary unit)?
5. If Adriano has 5 notebooks and Rafael has 4, how many do they have in all?
6. If Antonio has 9 notebooks and the teacher takes 6, how many does he have left?

$$\begin{array}{rrrrrrr} 8 & 6 & 5 & 1 & 4 & 9 & 7 \\ +\underline{4} & +\underline{4} & +\underline{9} & +\underline{9} & +\underline{9} & +\underline{2} & +\underline{2} \end{array}$$

$$\begin{array}{rrrrrrr} 11 & 12 & 10 & 11 & 10 & 14 & 13 \\ -\underline{\ 2} & -\underline{\ 7} & -\underline{\ 8} & -\underline{\ 7} & -\underline{\ 4} & -\underline{\ 8} & -\underline{\ 6} \end{array}$$

ARITHMETIC: TRANSITION 2 - MATHEMATICS 4 - WRITTEN

(1 point each)

1. Which is less, 20 or 15?
2. 14 and 6. Are these equal or not?
3. Juan caught 8 fish yesterday and 9 fish the day before. How many fish did he catch all together?
4. Maria caught 14 fish and gave 3 of them to her friend. How many did she have left?

$$\begin{array}{rrrrrrrr} 9 & 7 & 9 & 0 & 10 & 4 & 11 & 12 \\ +\underline{6} & +\underline{8} & +\underline{9} & +\underline{0} & +\underline{\ 3} & +\underline{11} & +\underline{\ 7} & +\underline{\ 8} \end{array}$$

$$\begin{array}{rrrrrrrr} 1 & 0 & 5 & 16 & 15 & 4 & 15 & 8 \\ 5 & 0 & 2 & -\underline{\ 7} & -\underline{\ 9} & -\underline{0} & -\underline{\ 7} & -\underline{8} \\ \underline{5} & \underline{6} & \underline{6} & & & & & \end{array}$$

ARITHMETIC: TRANSITION 3 - MATHEMATICS 5 - WRITTEN

(1 point each)

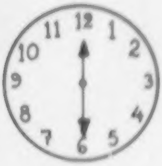
1. In Roman numerals the letter X = __________.

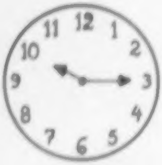
2. There were 3 canoes going to the village. Each canoe had 6 people. How many people were there all together.

$$\begin{array}{cccccccc} 9 & 4 & 8 & 3 & 7 & 6 & 2 & 4 \\ \times\underline{2} & \times\underline{4} & \times\underline{2} & \times\underline{4} & \times\underline{1} & \times\underline{2} & \times\underline{3} & \times\underline{4} \end{array}$$

$$\begin{array}{ccccccc} 3 & 3 & 2 & 15 & 19 & 7 & 4+5= \\ \times\underline{5} & \times\underline{3} & \times\underline{5} & +\underline{\ 3} & -\underline{\ 4} & +\underline{2} & 11-2= \end{array}$$

3. What time is it?





ARITHMETIC: TRANSITION 3 - MATHEMATICS 6 - WRITTEN

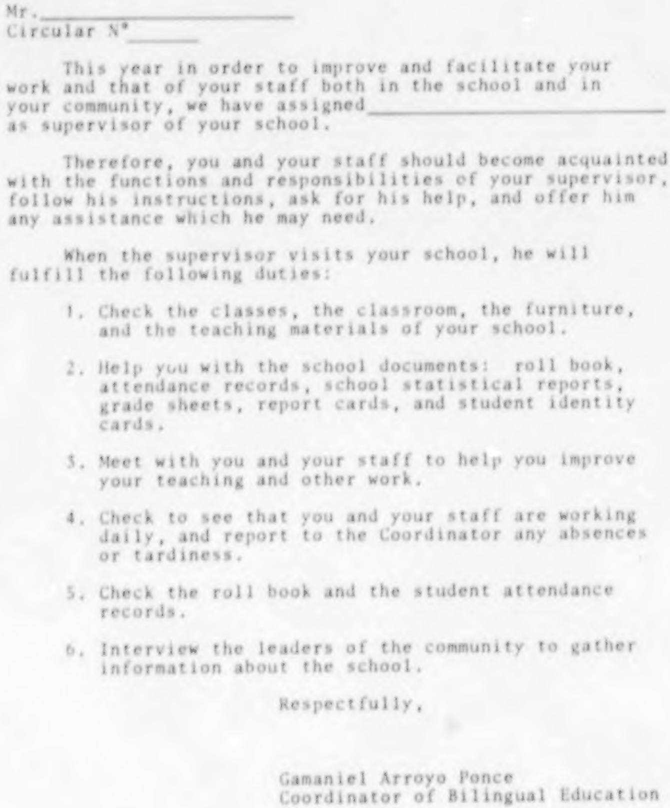
(1 point each)

$$\begin{array}{cccccccccc} 7 & 25 & 7 & 10 & 20 & 5 & 43 & 40 & 25 & 8 \\ +\underline{24} & +\underline{\ 6} & +\underline{4} & +\underline{21} & +\underline{\ 4} & +\underline{1} & -\underline{23} & -\underline{\ 0} & +\underline{10} & \times\underline{3} \end{array}$$

$6\times\underline{\quad}=18$ $\quad \begin{array}{c} 3 \\ \times\underline{9} \end{array} \quad \begin{array}{c} 4 \\ \times\underline{4} \end{array} \quad 4\overline{)20} \quad 8\overline{)16} \quad 3\overline{)18} \quad 3\overline{)12} \quad 5\overline{)15}$

$9:3=\underline{\quad\quad}$

If we had 16 people and we had to divide them evenly to put them in 4 canoes, how many people did we put in each canoe?



Mr.__________________________
Circular N°______

This year in order to improve and facilitate your work and that of your staff both in the school and in your community, we have assigned ______________________________ as supervisor of your school.

Therefore, you and your staff should become acquainted with the functions and responsibilities of your supervisor, follow his instructions, ask for his help, and offer him any assistance which he may need.

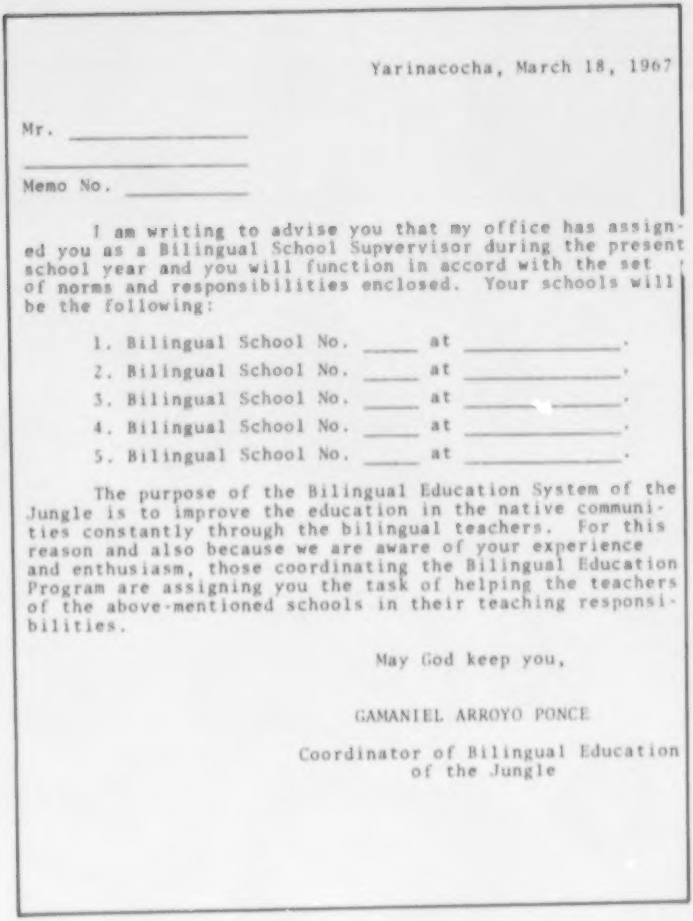
When the supervisor visits your school, he will fulfill the following duties:

1. Check the classes, the classroom, the furniture, and the teaching materials of your school.
2. Help you with the school documents: roll book, attendance records, school statistical reports, grade sheets, report cards, and student identity cards.
3. Meet with you and your staff to help you improve your teaching and other work.
4. Check to see that you and your staff are working daily, and report to the Coordinator any absences or tardiness.
5. Check the roll book and the student attendance records.
6. Interview the leaders of the community to gather information about the school.

Respectfully,

Gamaniel Arroyo Ponce
Coordinator of Bilingual Education

Figure 8.2. Letter from the Coordinator introducing the school supervisor, and listing his responsibilities.



Yarinacocha, March 18, 1967

Mr. ________________

____

Memo No. __________

I am writing to advise you that my office has assigned you as a Bilingual School Supvervisor during the present school year and you will function in accord with the set of norms and responsibilities enclosed. Your schools will be the following:

1. Bilingual School No. _____ at ______________.
2. Bilingual School No. _____ at ______________.
3. Bilingual School No. _____ at ______________.
4. Bilingual School No. _____ at ______________.
5. Bilingual School No. _____ at ______________.

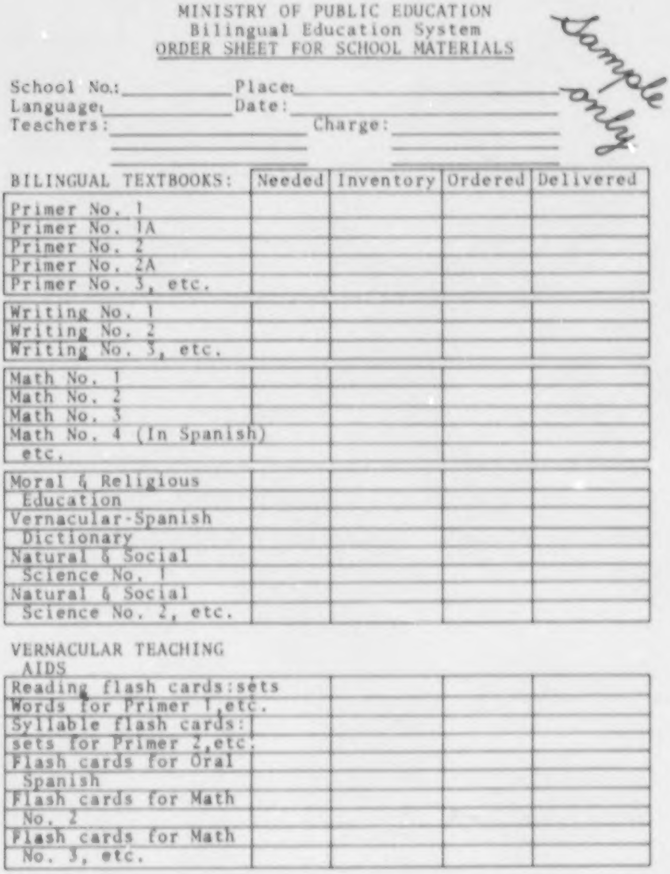
The purpose of the Bilingual Education System of the Jungle is to improve the education in the native communities constantly through the bilingual teachers. For this reason and also because we are aware of your experience and enthusiasm, those coordinating the Bilingual Education Program are assigning you the task of helping the teachers of the above-mentioned schools in their teaching responsibilities.

May God keep you,

GAMANIEL ARROYO PONCE

Coordinator of Bilingual Education
of the Jungle

Figure 8.3. Letter from the Coordinator to the newly-appointed Bilingual School supervisor.



MINISTRY OF PUBLIC EDUCATION
Bilingual Education System
ORDER SHEET FOR SCHOOL MATERIALS

Sample only

School No.:__________ Place:__________
Language:__________ Date:__________
Teachers:__________ Charge:__________

BILINGUAL TEXTBOOKS:	Needed	Inventory	Ordered	Delivered
Primer No. 1				
Primer No. 1A				
Primer No. 2				
Primer No. 2A				
Primer No. 3, etc.				
Writing No. 1				
Writing No. 2				
Writing No. 3, etc.				
Math No. 1				
Math No. 2				
Math No. 3				
Math No. 4 (In Spanish)				
etc.				
Moral & Religious Education				
Vernacular-Spanish Dictionary				
Natural & Social Science No. 1				
Natural & Social Science No. 2, etc.				

VERNACULAR TEACHING AIDS

Reading flash cards:sets Words for Primer 1,etc.				
Syllable flash cards: sets for Primer 2,etc.				
Flash cards for Oral Spanish				
Flash cards for Math No. 2				
Flash cards for Math No. 3, etc.				

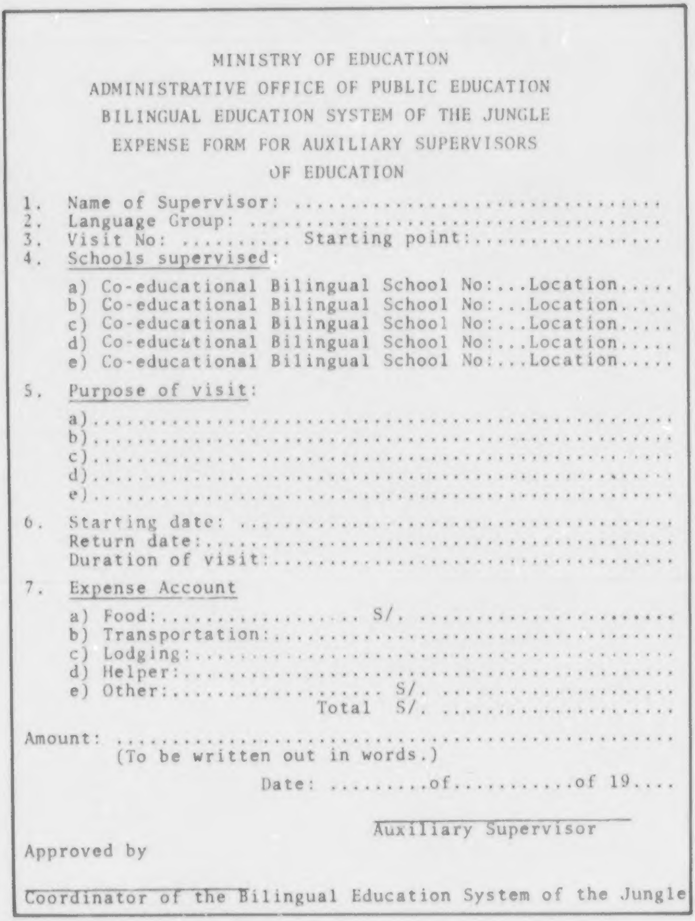
Figure 8.4. Inventory and order form used in the Bilingual School system.

No. of students estimated for 19___:

Trans. 1_______Trans. 2_______Trans. 3_______1st year______

1st yr.adv._____2nd yr._____3rd yr._____4th yr._____5th yr.____

SCHOOL MATERIALS	Needed	Inventory	Ordered	Delivered
Notebooks (20 pgs.)				
Notebooks (40 pgs.)				
Pencils				
Chalk, box of 100				
Calendar				
Blackboard				
Blackboard paint				
Flag				
School emblem (shield)				
Pictures of heroes				
Attendance register				
Registration form				
Statistical register				
Student identity card				
Report Card				
Monthly plan				
Daily plan forms, lower levels				
Daily plan forms, upper levels				
Map of Peru				
World map				
Map of South America				
Library books				
Inventory sheets				
Registration report				



MINISTRY OF EDUCATION
ADMINISTRATIVE OFFICE OF PUBLIC EDUCATION
BILINGUAL EDUCATION SYSTEM OF THE JUNGLE
EXPENSE FORM FOR AUXILIARY SUPERVISORS
OF EDUCATION

1. Name of Supervisor: ....
2. Language Group: ....
3. Visit No: .... Starting point:.................
4. Schools supervised:
   a) Co-educational Bilingual School No:...Location.....
   b) Co-educational Bilingual School No:...Location.....
   c) Co-educational Bilingual School No:...Location.....
   d) Co-educational Bilingual School No:...Location.....
   e) Co-educational Bilingual School No:...Location.....
5. Purpose of visit:
   a)..
   b)..
   c)..
   d)..
   e)..
6. Starting date: ....
   Return date:.....................................
   Duration of visit:...............................
7. Expense Account
   a) Food:................. S/. ....
   b) Transportation:...................................
   c) Lodging:..
   d) Helper:...
   e) Other:.................. S/. ....
   Total S/. ....

Amount: ....
(To be written out in words.)

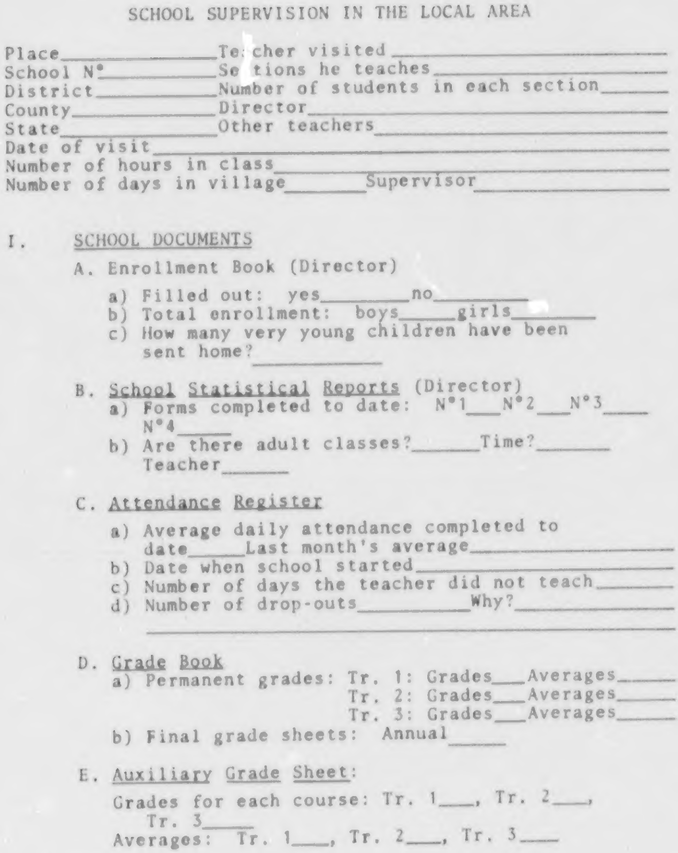
Date: ....of..........of 19....

Auxiliary Supervisor

Approved by

Coordinator of the Bilingual Education System of the Jungle

Figure 8.5. Expense form for auxiliary supervisors.



SCHOOL SUPERVISION IN THE LOCAL AREA

Place____________Teacher visited______________________
School N°__________Sections he teaches__________________
District__________Number of students in each section_____
County____________Director_____________________________
State_____________Other teachers_______________________
Date of visit____
Number of hours in class__________________________________
Number of days in village______Supervisor______________

I. SCHOOL DOCUMENTS

A. Enrollment Book (Director)

a) Filled out: yes________no________
b) Total enrollment: boys_____girls_______
c) How many very young children have been sent home?___________

B. School Statistical Reports (Director)
a) Forms completed to date: N°1___N°2___N°3____ N°4_____
b) Are there adult classes?______Time?_______ Teacher______

C. Attendance Register

a) Average daily attendance completed to date_____Last month's average_________________
b) Date when school started__________________________
c) Number of days the teacher did not teach_______
d) Number of drop-outs__________Why?______________
____

D. Grade Book
a) Permanent grades: Tr. 1: Grades___Averages_____
Tr. 2: Grades___Averages_____
Tr. 3: Grades___Averages_____
b) Final grade sheets: Annual_____

E. Auxiliary Grade Sheet:
Grades for each course: Tr. 1___, Tr. 2___, Tr. 3____
Averages: Tr. 1___, Tr. 2___, Tr. 3___

Figure 8.6. School supervisor's report form.

F. School Report Cards: Has?______Filled Out?________

G. Student Identity Cards: Has?______Filled Out?_____

H. Monthly Lesson Plan and Daily Lesson Plans

- a) Classes behind the monthly plan____________________
- b) Classes ahead of the monthly plan__________________
- c) Are there previous daily lesson plans?_____________
- d) Are there current plans with lessons and homework for each grade?_____________________________________

I. Book of Minutes____________J. Financial Records________

K. Birth Register_____________L. Register of Deaths_______

M. Census_________

II. THE SCHOOL AND ITS PROPERTY

A. General (Director)

1. Athletic Field________2. Latrine_________
3. Garden (for food)_____4. School animal project______
4. Garden (experimental)___________
6. School emblem (shield)____________
7. Flag_______8. Dormitory______9. Storage Barrel______
10. What book storage system is used?_________

B. Classroom

1. Teacher's desk____good condition____right size______
2. Benches and tables for students___good condition_____ right size_____
3. Blackboard: correct height____well painted____can be seen from each seat____place for calk____erasers_____
4. Book shelves____good condition____in order______
5. Light: adequate____inadequate___too much sunlight____
6. Protection from rain: roof_____walls_____
7. Cleanliness: floor_____yard_______

C. Books and Supplies Needed by the Teacher

1. Books____
2. Supplies____

III. THE SCHOOL

A. The teacher

1. Is he happy in the community?____________________
2. If not, what complaints does he have?______________
3. What are his main problems?________________________
4. Does he accept suggestions made by the supervisor?___

B. The Community

1. Is the community happy with the teacher?__________
2. If not, what complaints do they have?_____________

IV. TEACHING METHODS

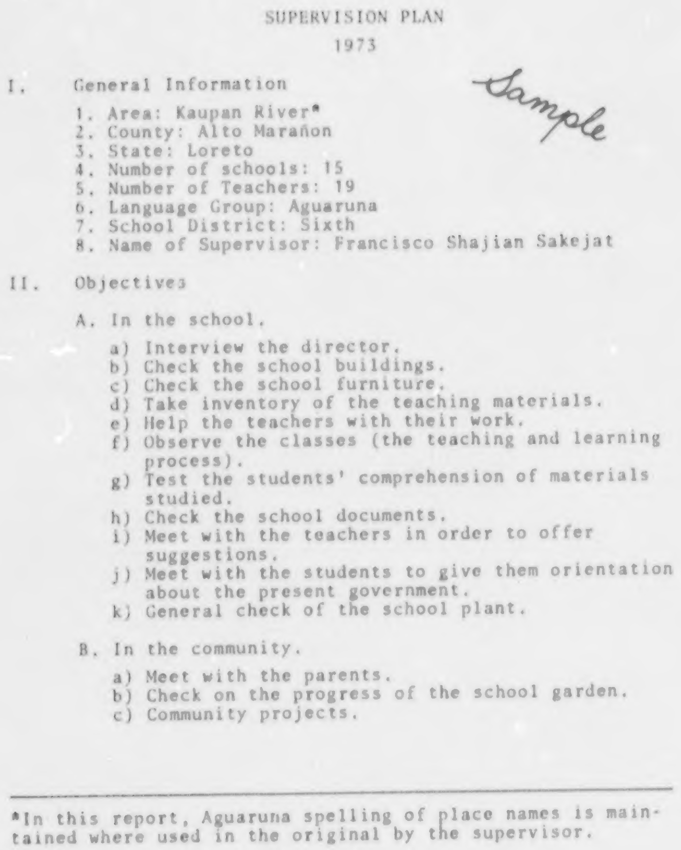
A. General

1. Grouping of students: sections separated______ tallest students towards the back?______
2. Is the teacher punctual?_____the students?_____
3. At what time does class begin?_____end?______
4. Are classes 50 minutes?_____recess 10 minutes?_____
5. At what time are Transición 1 & 2 dismissed?_______
6. Permanent Activities: Raising the flag_____ singing_____Bible reading (15 minutes)_____ Roll call_______
7. Discipline: good?_____what is lacking?___________
8. Teacher's preparation. Has he prepared before class?
9. Seat work while the teacher is working with other sections? Reading_____Writing_____Language_____ Arithmetic_____Natural Science_____Social Studies______
10. Checking of Notebooks: Language_____Arithmetic_____ Natural Science_____Social Science______

B. Suggestions for the teaching of each course

1. Transition and First Year: Arithmetic; Language (reading, writing, Spanish reading, oral Spanish); Natural Science (hygiene); Social Science; Special Courses (art, music, physical education, religion, manual arts).

2. Advanced grades: Language (writing, Spanish reading); Natural Sciences (animal life, plant life, minerals, nature, health of the child, hygiene); Social Sciences (geography, history, civic education); Mathematics, Special Courses (religion, art, music, manual arts, physical education).



SUPERVISION PLAN

1973

Sample

I. General Information

1. Area: Kaupan River*
2. County: Alto Marañon
3. State: Loreto
4. Number of schools: 15
5. Number of Teachers: 19
6. Language Group: Aguaruna
7. School District: Sixth
8. Name of Supervisor: Francisco Shajian Sakejat

II. Objectives

A. In the school.

a) Interview the director.
b) Check the school buildings.
c) Check the school furniture.
d) Take inventory of the teaching materials.
e) Help the teachers with their work.
f) Observe the classes (the teaching and learning process).
g) Test the students' comprehension of materials studied.
h) Check the school documents.
i) Meet with the teachers in order to offer suggestions.
j) Meet with the students to give them orientation about the present government.
k) General check of the school plant.

B. In the community.

a) Meet with the parents.
b) Check on the progress of the school garden.
c) Community projects.

---

*In this report, Aguaruna spelling of place names is maintained where used in the original by the supervisor.

Figure 8.7. Supervision plan for bilingual schools.

III. Resources

a) Supervisory report forms.
b) Expense form (report).
c) Motor boat, canoe.
d) Notebook for observations.
e) Hired helpers.

THE PLAN

1. First trip:
   --Leave Kaupan April 22.
   --School N° 64466 in Ugkuyaku.
   Visit to last from April 23-27. Five days total.

   --School N° 64461 in Putjuk.
   Visit to last from April 28-May 2. Four days total.

   --School N° 64456 in Aichiyaku.
   Visit to last from May 3-11. Eight days total.
   --Prepare Report May 12-19.

2. Second trip:
   --Leave Kaupan May 20
   --School N° 64530 in Yumug.
   Visit to last from May 21-23. Two days total.

. . . . .
. . . . .

PROGRAM PREPARATION for Alto Amazonas Teachers' Conference: June 1-9.
Trip to Alto Marañon to attend meeting of Auxiliary Supervisors, June 10-16.
Vacation in Alto Marañon Region, June 17-23.
Alto Amazonas Bilingual School Teachers' Conference at Kaupan, June 24-27.

3. Third Trip:
   --Leave Kaupan June 28
   --School N° 64536 in Alto Mayo.
   --Visit to last from June 29-July 2. Four days total.
   (In the plan all the details of each trip for the rest of the year are given, including two more major trips.)

BUDGET FOR SUPERVISION EXPENSES

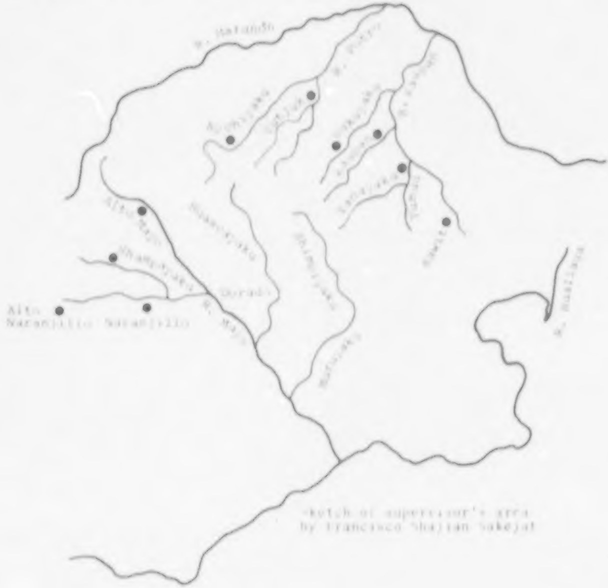
1. First trip: Schools 64460, 64461, and 64456.

a) Food	S/	1,700.00
b) Helper		1,550.00
c) Other		150.00
Total	S/	3,400.00

2. Second trip:

   (In the plan all the details of each trip for the rest of the year are given.)

The plan is accompanied by a map:


Alto Mayo
Alto Naranjillo
Naranjillo
R. Mayo
R. Huallaga

Sketch of supervisor's area by Francisco Shajian Sakejat

(Velie, 1977)

At a workshop for indigenous writers, Campa young people learn to use a typewriter and make mimeograph stencils (see chapter 18).

(Velie, 1977)

An author in the making, Carlos Mariano examines the stencil he has just made (see chapter 18).

(Hesse, 1962)

Pastor Valencia, a Ticuna schoolteacher, checks his pupils' notebooks (see chapter 12).

(Hesse, 1964)

Reading opens up a bright new future for an Aguaruna student (see chapter 5).

9

PROMOTING BILINGUAL EDUCATION THROUGH TEACHERS' CONFERENCES

Mildred L. Larson

A vital factor in the effectiveness and rapid growth of bilingual education among the Aguaruna during the past twenty years has been the yearly teachers' conference held midway through the school year. The first Aguaruna bilingual school was opened in 1953 with one teacher, Daniel Dánduchu P. By 1958 there were seventeen teachers working in nine communities. In each school, the teacher was struggling with his new job, with new ideas, and with new problems.

In 1958 Dr. Efraín Morote Best was Coordinator of Bilingual Education in the jungle. He suggested that the Aguaruna teachers spend part of their midyear holiday meeting together at one central place to discuss matters of common interest and to report to each other. Dánduchu was teaching at Chikáis at the time, and since he was the natural leader among the teachers, the meeting was held in his community.

Sitting around on balls of rubber in the community warehouse, they informally discussed the needs of their schools: how they could learn Spanish faster; how they could get documents so that they would be recognized citizens of the country; what to do about the problems they were having with the *patrones*, who constantly took advantage of the people in their communities; and many other topics. As a result of this meeting, the communities decided to appoint leaders to work with the teacher. A cooperative was founded to help the men from all the villages sell their produce (hides and rubber at that time) for a fair price. The role of the teacher expanded from teaching in his classroom to include responsibility toward the progress and development of the community in which he was teaching. The relationship between bilingual education and community development was, from these early years, fostered through the teachers' conferences which became a yearly gathering.

PURPOSE

The purpose of the first meeting was primarily to discuss problems created by the *patrones* working in the area and to present reports which would serve as a means of encouragement and mutual problem solving. As the bilingual education program developed and the conferences continued, they took on a fuller function in the educational program of the Aguaruna. The major aims throughout the history of the conferences were:

- To HANDLE SCHOOL DETAILS such as official school documents; the presentation of oral, informal reports; the ordering and distribution of materials; and communication of changes in plans or details of the work
- To FACILITATE THE ESTABLISHMENT OF NEW SCHOOLS by giving communities a time and place to put in their requests
- To RESOLVE CONFLICTS WITHIN THE SCHOOL SYSTEM itself
- To RESOLVE CONFLICTS WITHIN THE COMMUNITIES where the schools were located
- To RESOLVE CONFLICTS WITH OUTSIDERS who were not part of the Aguaruna community
- To RESOLVE PERSONAL PROBLEMS OF THE TEACHERS which affected the smooth running of the schools
- To ENCOURAGE THE TEACHERS through contact with their fellow teachers
- To STIMULATE NEW IDEAS and present information about innovations related to the programs of the school and the community.

LOCATION

Where the meetings were to be held, the time, and who should attend them changed somewhat from year to year. At first the meetings were held in a different community each year. There were a number of reasons for this: by meeting upriver one year, downriver the next, and in the middle the next, different people had to do the traveling each year. As travel might take several days, this was a way of sharing the expense in time and money.

Additionally, it was a drain on the community to have to prepare housing for the meetings and provide food for the participants. Often the men of the community would spend several days hunting in preparation for the arrival of the teachers. They also had to see that plenty of bananas and manioc would be available during the conference. Thus, it would be difficult for the average community to host a conference year after year.

TIME

The time of the conference was at first set to coincide with the midyear break, and lasted only a few days. But as the number of teachers grew, the conferences became longer (up to a week in length), and arrangements were made for them to be included as part of the annual school calendar rather than during vacation. Attendance was then obligatory unless special permission was granted by the Coordinator of Bilingual Education or by the conference body itself. (The meeting was usually held right after vacation.)

PARTICIPANTS

All of the bilingual teachers teaching in the Aguaruna schools attended. From the first, the teachers were encouraged to bring along representatives from their communities. Many of the matters discussed dealt not only with the schools, but also with the communities and the group as a whole. It was also helpful to have someone besides the teacher report back to the community. In later years the conferences became more technical and more limited to the teachers themselves. However, members of the communities were always welcome: closed meetings were held only when special disciplinary topics were being discussed.

Communities desiring a school for the first time sent delegations to request one. Communities desiring a change of teacher or needing more teachers also sent representatives to present their request. Visitors from the Spanish-speaking world, some of them people working in government projects in the Aguaruna area, were occasionally invited and asked to give special reports or presentations.

CONTENT OF THE MEETINGS

The informality of the first few years was replaced, as time went on, by a more scheduled agenda—a change necessitated by the increase in the number of participants. (By 1965 there were sixty-four teachers attending the conference, and in 1970 there were 109.)

The first item of business, after the singing of the national anthem and some opening speeches and announcements, was the election of a new president and secretary, who would then preside over the meeting for its duration.

Secondly, attention was given to the delegations from the communities, many of whom wanted to make their presentations and return home as soon as possible. The additional people were also a drain on the food supply and housing facilities. These delegations often requested a new school, or a change of teacher, or an additional teacher for their community. Sometimes there were teacher-community problems they wanted to air and sometimes problems with *patrones* or other outsiders.

Requests for new schools were considered by the conference. Questions were asked concerning the number of adults, the number of pupils, and whether a building had been prepared and an athletic field cleared. Often a teacher living in the same general area was asked to investigate further and to report to the supervisor or coordinator of the schools for action. Problems which were brought by these community delegates were discussed, and solutions suggested. The conference would arrive at a consensus, often making helpful plans to solve the problem.

Once the visiting community leaders were satisfied, the meeting turned to reports from the teachers themselves. In the early years, each teacher gave a report. Later, as the number of participants grew, only the director of the school gave a report, with the rest of the teachers having the option to add to or to clarify the report. When full-time supervisors were added to the school system, they gave their report prior to those of the school directors working under them.

When a report was given, the statistics, which included the number of students enrolled in each level of school, were first read and recorded by the secretary. The report continued, often emphasizing the problems, but many times also giving an overview of the important things accomplished during the first half of the school year. Problems included personal matters; problems in traveling, in getting materials, and in teaching so many levels or so many students; and problems in the community such as sickness and lack of cooperation from parents. Accomplishments included preparation of school gardens, community development programs, adult literacy programs, and the overcoming of special medical problems. Requests might be made for help of various kinds, such as an additional teacher for the next year, or a health promotor for the village, or acquisition of additional primers or other school materials.

At the close of each report, which might last from ten minutes to an hour or more, there was open discussion with questions and suggestions. Problems were taken seriously and solutions attempted, often very effectively. The teachers themselves never seemed to tire of hearing each others' reports and working on solutions.

As the meetings became more formal, special topics were selected ahead of time for presentation and dicussion, in addition to items which came up in the reports. These were related to bettering the work or to solving problems of general interest, and were interspersed throughout the teachers' reports to relieve the monotony (some years there were fifty or sixty reports).

There were many special topics appearing in the minutes of the conferences held during the ten years from 1963 to 1973. Included were school administrative matters such as how to fill out school documents; ordering, movement, and care of materials; how to transfer students between schools during the school year; and how to teach many levels in one room with one teacher. Other more general topics involved adult education, education of girls, the need for consolidation of the higher levels so as to utilize teachers who spoke Spanish better to teach these levels, the need for supervisors in each area, the need for an Aguaruna as coordinator of schools, and the relationship between the supervisor and the classroom teacher.

Topics relating to the community included land solicitation, health and sanitation, religion in the school and in the community, building airstrips, relationships with the army posts in the area, and community economic development projects.

One discussion led to the development of a permanent center for the conference. The matter of advanced education for the teachers was a continuous topic as the teachers sought ways to continue their secondary education during the summer. They also had several discussions relating to the advanced students who finished their primary education and were ready to go on to high school or to begin working. Going on to high school meant leaving the tribal area. The advisability of this and the problems involved were discussed, and requests were made that a secondary school be established in the area by the government or some other organization.

The above does not include every topic discussed, but is meant to be representative of the kinds of discussions which were such an important part of these meetings. The conference also approved the opening of new schools and the transfer of teachers from one school to another.

Time was taken during the conference for recreation, including competitive soccer with teams drawn from the areas the teachers came from. Singing was an important part of the meetings. During the free hours teachers renewed their friendships with people they had studied with during their training courses in past summers.

RESULTS

Without doubt these yearly conferences have had a strong influence on the development of the bilingual schools among the Aguaruna. Their influence has been felt in many areas, especially in (1) facilitation of communication, (2) personal problem solving, and (3) enhanced tribal unity and identity.

In the area of facilitating communication, the conference presented an opportunity for reporting on needs and surpluses of school materials and thus allowed for redistribution. It aided the movement of personnel throughout the system by grappling with reports concerning the need for new schools or additional teachers and matching these with situations where personnel shortage was a less crucial problem. It helped in the establishment of schools by giving communities a time and place to make their requests. It facilitated the reporting and solving of many kinds of problems. And lastly it provided a way for other entities, such as the army, government officials, and school authorities, to communicate on a wide scale through a single meeting.

The conference was also a morale builder both for the individual and for the ethnic group as a whole. The teacher who was feeling pressure from his community or from outsiders could get a hearing and help, minimally in the form of understanding and counsel and often in the form of very practical suggestions for a solution to the problem. Finding that "we are all in the same boat" encouraged some who had been feeling that they were struggling alone in their isolated village. The possibility of presenting a united front in face of the problems involved in education, community development, and health promotion made it easier for each individual to carry out his part of the total program.

There is no doubt that one of the greatest results was the sense of tribal unity fostered by the meetings, as well as strengthening of the group's self-image. The knowledge of what was going on throughout the area gave a sense of oneness, of direction, of being part of a larger program with significance in the country as a whole. Guest speakers who came realized that they were addressing the Aguaruna, not just a handful of people but a core of leaders who would communicate to the rest of the group. These leaders, the teachers, worked together to understand the new land reform laws, the new community development entities coming into the area, and the implications of the arrival of the road and with it "civilization." They discussed the problems facing their people in striving for basic and then advanced education, and they discussed with honest concern how to make education available for the more isolated areas of the tribe. All this led to a unity of purpose—unity based on choices which they as a group had made together and which therefore led to increased solidarity. It meant the breakdown of old feuds, and it brought together long-time enemy groups as they united in common interests. Freedom for individuals to travel through the entire Aguaruna area was a most positive by-product.

In the seventies, when the government decentralized school administration, the Aguaruna schools were divided into several districts, each with a nuclear center which handled district administrative matters. From that point on the meetings began to be held within the districts and included much smaller groups. However, by then the larger conference had been divided up into several small conferences because of the difficulty of travel to more distant locations, and in some of the districts conferences continue.

At the present time the Aguaruna teachers themselves are asking for a reestablishing of the unified conference. Many of them feel that the lack of such a conference has led to confusion in the Aguaruna community as a whole, since different districts have followed different policies and materials.

At the time this report was being written, the Ministry of Education was studying the possibility of reestablishing the bilingual education program with its own director and administrative structure. If this becomes a reality, the Aguaruna conferences will again serve an important function in the system.

Velie, 1977

Using a simple duplicator, authors make copies of their typewritten books (see chapter 18)

Velie, 1977

An author sews together the pages of his book (see chapter 18)

PART III
THE PERUVIAN EXPERIMENT

Part III
What We Have Learned from the Peruvian Experiment

In recent years, much has been written about bilingual education. Distinguished educators and scholars with broad experience have recorded their findings and established principles for us all to follow.

These chapters do not presume to duplicate that work. Rather, the intent is to review matters which, although not always anticipated, have proved to be important factors within the framework of bilingual education in Amazonia. Hindsight, of course, is an asset; it has not been possible, for a variety of reasons, to implement all of the alternatives suggested. Nevertheless, as the program has gradually developed, much has been learned which might be helpful to someone beginning a similar program in preliterate, vernacular-speaking groups. We hope this section will be informative and helpful to others also whose programs may be quite different in detail but who are faced with some of the same challenges.

The preplanning aspects are discussed first, followed by summaries of what has been learned as this relates to the community where the schools are held, to the teachers themselves, and to the pupils. The last chapter presents the benefits that have been realized by the bilingual education program, including an effective means of learning, promotion of self-respect and a sense of cultural pride, and reduction of culture shock through gradual exposure to the majority culture.

The chapters in this section were written by Patricia M. Davis.

10

PREPROGRAM PLANNING

Three major prerequisites for a successful bilingual education program were listed in chapter 2: (1) the spoken languages of the indigenous peoples must become written languages (see chapter 15), (2) primers and textbooks must be prepared in those languages (see also chapters 15 and 16), and (3) members from each language group must be trained as teachers. In addition, the Peruvian jungle experiment has brought into focus the importance of planning for several other interdependent aspects of the school program. It is the purpose of this chapter to list these observations, although it is recognized that they are specifically oriented to the Peruvian situation and that in other areas the listing would vary depending upon the circumstances.

RECOGNITION OF THE ROLE OF BILINGUAL EDUCATION IN THE NATIONAL EDUCATION PROGRAM

The Peruvian bilingual education program was planned as a specialized attempt to prepare vernacular-speaking pupils from the jungle to participate in the regular national education program. Special consideration and special support have been allotted to it, which undoubtedly has been crucial to the degree of success that has been achieved.

ADEQUATE ADMINISTRATIVE SUPPORT

Among the most important items in the administration of bilingual education have been the following:

Educational laws

Excellent examples are found in the Peruvian educational system, which has introduced laws supporting the teaching of native languages, the appointment of specially trained teachers, and the preparation of native language textbooks (see Appendixes A and B).

Clear organizational structure

(1) Appointment of administrators and supervisors, with clear definitions of their roles.

(2) Appointment of teachers (also procedures for leave of absence and termination.

(3) Supervision of schools.

(4) Supply of documents (registers, inventory forms, etc.).

(5) Receiving of documents (statistics, inventories, reports of problems, requests for supplies).

(6) Training programs:

(a) For administrators and teacher-training staff. This has included not only orientation to the work, but also orientation to cultural differences and situations which will need special consideration.

(b) For native teachers: (1) organization of training courses, (2) appointment of staff, (3) curriculum, and (4) prerequisites for entry.

(7) Preparation of textbooks and teaching aids, i.e., who will prepare them, who will authorize them, and who will fund them.

ADEQUATE BUDGET

Major items of expenditure in the bilingual education program have been: (1) salaries for administrators, supervisors, and teachers; (2) training courses; (3) textbooks—preparation and printing; (4) school supplies—flags, books, chalk, blackboards, etc.; and (5) storage facilities, transportation for textbooks and school supplies, plus staff to keep inventory and receive and fill requests for supplies.

The Ministry of Education has funded the printing of textbooks, and sometimes other school supplies such as flags and notebooks. Occasionally, grants from philanthropic organizations have supplemented the budget. The Ministry also built the central storage room and the teacher-training campus, and provided funds for administrators, supervisors, teachers, training courses, and staff.

Linguists and other SIL members, whose services were donated, spent considerable time in textbook preparation and served as consultants, logistic comptrollers, and professors whenever requested to do so by Ministry representatives. (Although, for a time an SIL member did receive a salary as Subdirector of the teacher-training course, the funds were turned over to the bilingual education program.)

Bilingual school teachers financed part of the school supplies, their transportation, and, for the most part, storage facilities in the villages, although at one time storage barrels were provided by the Ministry. The teachers also financed their own transportation to and from training courses, as well as board and school supplies during their stay. (An exception to this occurred in the early years of the program, when the candidates' transportation and board were supplied.)

A REALISTIC SCHEDULE OF TEXTBOOK PREPARATION AND PUBLICATION

In 1952, when the government asked the members of SIL to prepare materials for bilingual education, many of the field linguists were just beginning their study of jungle languages. Every effort was exerted to complete phonological analyses and prepare beginning readers. Subsequent textbooks were prepared year by year, often barely coming off the press before the village schools needed them. This was not ideal, but it kept the village schools functioning. It would have been much better to have had *in hand* a supply of textbooks for all subjects of the curriculum which were to be taught during the initial two-year period.

A two-year head start is now considered minimal for two reasons:

- Those preparing materials tend to become so busy with the program that either there is no time to write subsequent books or insufficient allowance is made for lags in publication.
- We find that ordinarily between one and two years are required to complete the entire process of preparing, checking, and printing a textbook.

FORMATION OF THE TEXTBOOK COMMITTEE

The textbook committee for a given language usually has consisted of: (1) the linguist studying the language, (2) a native speaker of the language, (3) a specialist trained in principles of textbook preparation, and (4) a representative of the Ministry of Education. Given other work pressures, a continuous flow of communication between all members of the committee can be difficult to achieve, but has proved important. Individual circumstances have determined the amount of time each team member dedicated to the project.

ESTABLISHMENT OF SUPPLY LINES

Supplying the schools with materials has been one of the more difficult problems in isolated areas. Therefore, in such areas provision needs to be made for:

- A SYSTEM WHICH WILL FUNCTION on a long-term, self-perpetuating basis (not break down due to lack of transportation, for example).
- A SYSTEM WHICH IS CLEARLY UNDERSTOOD by all concerned, and which the teachers are willing to use; for example, in Peru, prior to decentralization of the bilingual schools, a large Ministry of Education storeroom was located

near the site of the Yarinacocha print shop, where vernacular books were published. A Ministry of Education employee filled orders sent in by the teachers and kept inventory. Because of the difficulty of finding transportation during the school year, most teachers made every effort to order and take with them an adequate year's supply of books and materials as they returned to their villages after the teacher-training course However, if transportation was available, it was possible to supplement this, from time to time, by ordering from the central storeroom.

In large language groups isolated from the central storeroom, such as the Aguaruna, native supervisors stored extra textbooks in their offices. In their travels they had the opportunity to distribute books as needed and reallocate texts not needed in one school but lacking in others.

The decentralization in 1974 precipitated a breakdown in the supply system, since distant Spanish-oriented school districts had little knowledge of the vernacular books. The Ministry of Education is seeking ways to solve this problem.

ORIENTATION OF THE NATIVE COMMUNITY

Since the best-planned bilingual education program can flounder if the native community does not understand it, we have found that careful discussion and agreement with community leaders prior to the beginning of a school are important. These will be discussed in detail in chapters 11 and 14.

SUMMARY

We have learned that a more successful and efficient program is established when the preplanning includes recognition of the role of bilingual education in the national education program: adequate administrative and budgetary support: a realistic schedule of textbook preparation, with a textbook committee to serve in an advisory capacity: establishment of supply lines: and orientation of the native community.

11

THE PROGRAM AND THE COMMUNITY

In Amazonia the relationship between school and community is very closely knit. This is not only because in face-to-face societies whatever one member does affects most of the others, but also because literacy usually "requires and causes some fundamental changes in the structure of any preliterate society that adopts it on a major scale."[1]

This being the case, it is important for the community to play an active role in decisions relating to establishing and operating a school and that these decisions be based on as much information as can be provided concerning the benefits, demands, possible alternatives, and ramifications of a school program. Although it often falls to an outsider to provide this information, our experience has been that the program is more likely to succeed if the decisions concerning it are genuinely community decisions based upon adequate data.

The minority groups of the Peruvian jungle, however, have usually been quick to realize the value of being able to read, write, handle figures, and communicate in the national language. They have wanted schools on that basis and, in many cases, have taken the initiative in requesting them. What has been more difficult to communicate is that changes in life-style may thereby be generated. Listed below are some of the aspects which have been helpful for us, as consultants, to keep clearly in mind, along with conclusions reached as experience indicated ways to avoid potentially stressful situations. Due to various limitations, it has not been possible to test every recommendation; nevertheless, we feel that all are worth considering and that in some instances the alternative suggested here would have been preferable to the course actually followed.

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[1] David Bendor-Samuel, "Literacy and Basic Education in Community Development." (Paper presented to the Society for Applied Anthropology at the Symposium on *Community Development for Minority Language Groups* held in April 1978 in Mérida, Yucatán, Mexico.)

CLARIFYING FOR WHOM THE PROGRAM IS DESIGNATED

Traditionally, bilingual education has been directed towards children and teen-agers because:

- THEY ARE MOST FREE TO ATTEND CLASSES
- THEY ARE THE FUTURE LEADERS
- YOUNG ADULTS USUALLY LEARN QUICKLY.

Experience has shown, however, that educating the young people in a preliterate society to the exclusion of their elders may result in the following:

- A GENERATION GAP between young and old, with consequent misunderstandings and recriminations
- CONFLICT with previous lines of authority (older, experienced men usually carry the decision-making responsibilities)
- FRUSTRATION: the young people because their ideas, although often good, are not accepted; the elders because they begin to see that they lack the expertise with which to handle the problems of a new era.

OUR CONCLUSION: *In the case of a preliterate society, both educators and community need to consider beginning bilingual education with the head men (and perhaps women) of the community. Although it makes for a slow start, it preserves the tribal lines of authority. Ordinarily, as key men experience the benefits of education, they have wanted it for their wives and children.*

This method has been tried among the Mayoruna, one of the least acculturated tribes of the Peruvian jungle, where adults have demonstrated a real desire to learn to read. Men and young adults, taught individually as they came for help, were encouraged to teach the newly learned pages to their wives and households. Later, key men were selected for special training, and they now drill small groups of students who gather for help.

Over a five-year period, some sixty independent readers have been prepared, and one entire community, numbering about 550, is becoming "literate" in the sense of understanding the processes involved in reading, writing, and arithmetic.

The success of this particular project has been aided by two important cultural factors: first, the Mayoruna have never considered their language to be inferior and thus do not resist learning to read it. Second, anyone among them who has a skill is considered responsible to teach it to others.

CONSIDERING THE SOCIOLOGICAL AND ECOLOGICAL FACTORS

Close quarters

Many of the peoples of the jungle have had no previous reason to live in a community and may find it difficult to adapt to the continuous proximity of neighbors after the freedom of their isolated life.

OUR CONCLUSION: *If communal living is foreign to the indigenous life-style, both the people and the resource person may need to consider alternatives to the establishment of large villages, and try to adapt to accustomed ecological, dwelling, and settlement patterns. Literacy campaigns coordinated with seasonal lulls in field work, itinerant teachers, or laws permitting parents and children to study by extended family groups in small classes, may prove more advantageous than massing people into communities.*

If large groupings cannot be avoided, adequate distances between houses, and weekends and/or longer periods away *from the village have helped to ameliorate pressures felt by the people.*

The restrictions of community living

Community restrictions of some individuals' activities for the good of the group may produce strain. It also takes courage on the part of the leaders to suggest limits.

OUR CONCLUSION: *If people must live in villages which are larger than they are accustomed to, orientation to communal living will probably be needed. Community meetings can provide an opportunity for mutual agreement on community rules. Another important factor will be the development of local leadership patterns with orientation to national systems of authority.*

Scheduling

The presence of a school imposes a certain amount of scheduling upon a community because the teacher and students must set aside specific hours for classroom attendance. This new schedule may conflict with their previous flexible life-style.

OUR CONCLUSION: *Parents need to be consulted so that the school schedule conflicts as little as possible with the needs of the people. Parental support also needs to be enlisted for regular school attendance, but flexibility will be necessary to adjust for seasonal work or other real needs.*

Change of life-style

If the government requires a minimum of twenty-five pupils for a school to be established (as is the case in the Peruvian jungle), it may involve the gathering of a larger community than the ecology of the jungle can support by traditional subsistence patterns. Game animals then become scarce and must be replaced with domesticated ones. The jungle is depleted of its nuts, berries, and edible insects, which must be replaced with garden produce. Materials for house construction and firewood become scarce. Unexpectedly, patterns begin to change towards a more sedentary life-style.

OUR CONCLUSION: *Although difficult, it is important to adapt the bilingual school system to the needs and life-style of the indigenous peoples, while at the same time avoiding the creation of a system which is financially unfeasible. It is sometimes possible to anticipate those changes which are unavoidable and alert the people to alternate ways of preparing for them, for example, learning to raise fowl, guinea pigs, or cattle as an alternate meat supply.*

Disease

Community living may carry with it the risk of increased illness. Parasites and epidemics are particularly common. Pressures can become intense, especially if death strikes over and over during an epidemic.

OUR CONCLUSION: *Very high priority should be given to helping the people find ways to control disease with an adequate health program. This should include a sufficient supply of basic medicines and a resident trained to administer them, in addition to immunization campaigns and the teaching of preventive hygiene.*

It should be noted that among the Peruvian jungle groups in which bilingual school teachers emphasized preventive hygiene, and drugs and medical aid have been provided, there has been a noticeable improvement in the general health of the people. In fact, one of the reasons which some of the Machiguenga have given for wanting to move to a school community is that there is better health care available there than is possible in their isolated dwellings.

Visitors

The existence of a community increases the number of visits of "outsiders" who formerly would not have traveled so far on the chance of finding an isolated house. For ethnic minorities not used to meeting the outside world, any visitor may be an unwelcome, sometimes frightening, intrusion. An increasing stream of visitors (traders, lumber workers, linguists, anthropologists, botanists, educators, public health teams, tourists, missionaries), even if well intentioned, can become a source of tension to native peoples.

OUR CONCLUSION: *If people are new to communal living, community leaders may need help in anticipating the coming of visitors and in finding ways to cope which will ameliorate the pressures for all, such as building a guest house at a comfortable distance, finding someone who is willing to provide restaurant services, setting prices for food, or arranging recompense in some suitable way.*

CONSIDERING THE TEACHER'S IMPINGEMENT UPON THE COMMUNITY

The teacher seeks to fulfill his responsibilities and guide the newly gathered villagers into a way of life which will benefit everyone. His efforts, usually wise, well intended, and in the main, well received, may also introduce demands and concepts new to the people of the community. For example:

- REQUESTS FOR WORK—for building of school, airstrip to supply school, construction of village site, clearing of fields, community projects, etc.
- REQUESTS ORIGINATING FROM THE OUTSIDE WORLD—services for visitors; cooperating with vaccination and other government teams; explaining laws of which the people formerly were ignorant, such as those governing hunting and fishing.
- PUBLIC HEALTH OFFICER: if the teacher is the first dispenser of "Western" medicine in the community, he may recommend treatments which run counter to tribal beliefs and practices. The people may then be caught in the conflict of which method to accept.

OUR CONCLUSION: *A resource person can render a valuable service by helping both teacher and community to recognize these factors, to discuss them, and to be understanding and supportive of each other in a situation which initially may be somewhat uncomfortable for both.*

In addition, the teacher may also be the agent of pressures which are less easy to identify, such as:

- INTRODUCER OF MATERIALISM: The teacher's salary, which can procure goods and services not available to all, may open the door to jealousy. In most cases, the teacher shares generously; even if he does not do so willingly, most societies have means for requiring members to distribute their wealth. However, financial inequities do sometimes generate tension.
- INSTIGATOR OF AN EDUCATIONAL GAP: as students acquire more knowledge, the gap between the schooled and the unschooled may widen. Differences in world view develop—differences in the way each group feels towards the outside world, health practices, marriage customs, community organization, the majority language, cash crops, religious beliefs, and taboos. Both adherents of the traditional system and the new alike will find it necessary to assess their positions.

OUR CONCLUSION: *It is important to help both teacher and community understand the process of change in which they are involved. They need to recognize the aspects they consider positive and to identify and find ways to ameliorate those aspects they consider negative. Discussions in community meetings, orientation to the reasons given by westerners for their codes and values, and group agreement as to what will or will not be accepted in the community can all be helpful factors.*

CLARIFYING THE BENEFITS OF BILINGUAL EDUCATION TO THE COMMUNITY

Isolated villagers do not always know what results a bilingual school can bring into their lives, either short-term or long-term. Chapter 14 mentions in detail some of the items that may need to be discussed.

CLARIFYING WHAT OUTSIDE HELP CAN BE OFFERED

Government recognition, teacher-training programs, and special textbooks are usually considered basic. Other aid will depend on the situation.

CLARIFYING WHAT COMMUNITY RESPONSIBILITIES WILL BE

Community responsibilities often have included choosing the teacher candidate, helping to build the school, supplying the teacher with part of his food if teaching will curtail his hunting and fishing time, paying for specific school supplies, cooperating so that there is regular student attendance, and cooperating in matters of discipline. Whatever else is seen as necessary for a suitable working arrangement should also be brought to the attention of the group and agreed on by the members of the community.

CLARIFYING WHAT THE TEACHER'S RESPONSIBILITIES WILL BE

Specific responsibilities can best be established in community meetings, providing a basis for reasonable and mutually-agreed-upon expectations. (See chapter 12 for items that are important to keep in mind.)

CLARIFYING FINANCIAL ARRANGEMENTS

Historically, among the jungle tribes, the communities have been expected to demonstrate their interest in having a school by assuming the responsibility for construction of the building, the playground, and—if necessary—the airstrip to supply the school. The community, in cooperation with the teacher, is also responsible for maintenance of school furniture, roof, etc.

However, since cash was in very short supply (some tribes still traded chiefly by the barter system), books and most of the school supplies, such as blackboards, chalk, and notebooks, were initially provided by the government.

In recent years, costs have risen, fewer items have been provided free, and tribal peoples have acquired somewhat more cash income. For the future, it will be important to establish the principle of financial contributions, especially in areas where government funds are limited.

OUR CONCLUSION: *Before a school is established, financial arrangements need to be clarified with the community. There is value in establishing a scale of contributions which will increase as the community becomes more able to make them.*

SUMMARY

The creation of a bilingual school in an isolated monolingual community occasions some stress. Nevertheless, the tensions created by the bilingual schools seem to have been considerably fewer than those produced by the monolingual Spanish-speaking schools which have been established in some monolingual vernacular-speaking communities. We have found that the pressures of a bilingual school can be reduced if all involved are aware of the stress factors and commit themselves as a group to seeking compensatory or ameliorating solutions. A sense of pride and unity develops as difficulties are overcome, and the school becomes a functioning and beneficial reality.

ESCUELA BILINGUE N° 50

(Bondurant, 1962)

A wide grin gives evidence of the pleasure of an Amuesha child in seeing his own composition in a reading book used in the bilingual school (see chapter 19).

(Smotherman, 1973)

A bilingual teacher helps Campa children understand their assignments (see chapter 7).

12

THE PROGRAM AS IT RELATES TO THE TEACHER[1]

Perhaps no other factors have proved more important to the success of the bilingual schools of the Peruvian Amazon than the selection of and the subsequent support given to the bilingual teachers—teachers chosen from the rank and file of their society to play a new, often complex role which, especially in the minds of other members of their communities, may not be clearly defined. In isolated areas they are often expected to assume many more responsibilities than are their counterparts in more specialized societies. Personal pressures may be generated, as well as genuine personal satisfactions. It is usually the responsibility of the administrators and/or advisors of the school system to help establish a climate in which the teacher can function comfortably.

This chapter discusses these matters, listing conclusions arrived at and solutions attempted as problems were encountered. Most of the problems are discussed in the context of groups which have had relatively little continuous contact with the outside world and in which new communities are formed for the purpose of establishing a school. Among groups with more outside contact, the problems may be somewhat different.

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[1] I am indebted to my colleague Willard Kindberg for part of the material in this chapter.

SELECTING A TEACHER

Throughout the years, the following items have proved to be important factors in teacher selection.

Strongly backed by the community

Normally, teacher-community relations have been their best when the teacher was chosen from AMONG THE MEMBERS OF A COMMUNITY (outsiders often are not well received in close-knit societies), and the SELECTION WAS MADE BY THE COMMUNITY, once they understood the qualifications, responsibilities, etc., which the work entailed.

For the relationship to be successful, however, the TEACHER MUST BE WILLING TO WORK IN COOPERATION WITH THE VILLAGE LEADERS, declining as much leadership responsibility as possible and referring decisions to them. (Cf. p. 218 for cases in which the teacher may automatically be the leader and pp. 213–216 for cases in which he may have to assume leadership temporarily.) This type of teacher-community cooperation accomplishes several important goals:

- TRIBAL LINES OF AUTHORITY ARE NOT UPSET by the advent of a new "headman" *(cabecilla)* because the teacher does not assume that role;
- THE TEACHER IS SPARED MANY EXTRA PRESSURES he would otherwise be subjected to;
- BOTH SCHOOL AND COMMUNITY BENEFIT from the cooperation;
- THE TEACHER AND HIS FAMILY ARE HAPPIER because they remain in home territory, with the inherent advantages of family ties and established field, house, etc.

Usually a man

In the jungle, a woman teacher can function happily if the following conditions are met:

- SHE DOES NOT HAVE SMALL CHILDREN;
- SHE IS OLDER and mature enough not to be suspected of conducting affairs with her older students.

or

- SHE TEACHES ALL-GIRL CLASSES;
- SHE TEACHES IN THE PRESENCE OF HER HUSBAND or acts as his assistant (he may be the director of the school);
- SHE DOES NOT UPSET TRIBAL MARITAL VALUES by becoming more affluent and/or prestigious than her husband by virtue of her teaching position and salary;
- SHE DOES NOT ALIENATE THE COMMUNITY by assuming what is normally considered to be a man's role.

Unless the above requirements are fulfilled, our experience is that in most jungle ethnic groups, women teachers are seldom successful, not because of lack of ability but because cultural norms are violated. The family pressures and social resentments which result usually have made the work either impossible or intolerable.

Capable of fulfilling a teacher's responsibilities

There seem to be two main errors which can occur in regard to teacher selection. One is to assume that only a bright young man with maximum education can qualify. The other is to accede to a community's choice for teacher, regardless of his academic ability.

The bright young man may indeed prove capable of learning teaching techniques, but if he is impatient with children or slow learners or is too proud to receive the suggestions of the head men of the community, he will probably not be successful.

The community appointee may have been selected by patronage (because, for example, he is a relative of the dominant family) and may not be intellectually qualified or sufficiently stable to be a good teacher.

A stable, respected member of the adult community

Although, occasionally, a wise young person who defers to the village elders in community matters has been very successful, we have found that in jungle societies teachers, to be accepted, usually need to demonstrate the maturity of years. Among other traits which community members and administrators alike have learned to value are the following: (1) wise decision-making, (2) persistence, (3) kindness and generosity, (4) personal integrity, and (5) firmness. Additionally, the teacher is usually expected to have mastered the skills possessed by adult males of the culture.

OUR CONCLUSION: *When choosing a teacher, it is usually best to appoint a man. Character qualities should be given first priority; strong community backing and sufficient ability to handle academics and record keeping are also important. Faithful plodders have done better in the long run than brighter but less stable people. Candidates attracted by salary considerations but without a deep commitment to teaching have not proved to be good risks.*

THE TEACHER'S ROLES AND RESPONSIBILITIES

Identifying the teacher's roles

In semi-isolated societies, one of the teacher's greatest hazards may be that of being thrust into too many roles, with consequent overload and frustration—a syndrome to which administrators have not always been alert. Consider the potential pressures on a teacher if he is the founder of a new community and the only member of the village who has been in contact with the outside world:

Teacher. In his role as teacher, the following may hold true:

- The school schedule may conflict with his own previously unscheduled life. The community's lack of understanding of the schedule is predictable, for time has never before been precisely measured. Children and parents alike must learn to be ready at class time, to observe school attendance, etc.

- Preparation for three to six levels of classes may require much out-of-class study (more than other responsibilities allow).
- If the school statistics a teacher is required to keep are more complicated than his minimal academic training can handle, large expenditures of time during the school year can still fail to produce accurate records.
- Although financial help is not always available and transportation is often a major problem, the teacher must see to it that a school building and school supplies are provided.
- The teacher may be obliged to enroll very young children whom he is not equipped to handle and to provide orientation for them (see chapter 13).
- The teacher's contact with his female students may bring criticism from other community members.

Community leader. If the teacher accepts the role of community leader, his duties may include the following:

- assisting in keeping the peace;
- assisting in marriage negotiations;
- adjudicating problems of food supply—how land is to be parceled out, where gardens are to be planted, etc.;
- dealing with visitors who come to the village, defending community rights, and seeking justice from authorities;
- spearheading arrangements for land grants and reservations, at times under a legal system which he does not thoroughly understand;
- drawing up and helping in the implementation of public health rules for the village;
- introducing new crops and animals, which necessitates setting aside time to care for them and training others to do so;
- interpreting laws and requirements of government officials to the people (these are not always well received);
- financing training for others—for example, teachers, carpenters, mechanics, health promoters, etc.

Public relations man. The teacher may be pressed into public relations because he is the only (or best) Spanish speaker, or the community leader. This can involve:

- attending visitors (supplying food, housing, entertainment, receiving criticisms, and responding to their requests; since visitors are becoming increasingly frequent, attending to their needs may require an increasingly larger percentage of the teacher's time);
- pacification in the wake of visitors (as mentioned in chapter 11, ethnic groups may resent even well-intentioned visitors, such as vaccination and malaria-control teams, because of reactions to the medicines or because domestic animals die from sprays; naturally enough the team moves on, unaware of the pacification efforts the teacher is required to make);
- diplomacy (dealing with traders on behalf of those who neither speak Spanish nor know how to count money; when dealing with landowners who pressure Indians for work outside the community, groups who wish to use the people for political or other ends, visitors who may try to violate the women of the community, etc., the teacher may have to be the one to say "no" for the community);
- acting as middleman as offers from the outside world are presented to the villagers: different religions, projects (government and private), loan offers, and many others.

Airstrip initiator and engineer. Because the only practical way to supply many of the jungle communities is by air, the teacher may feel pressured to recruit help in the construction of an airstrip. Hundreds of man-hours are expended on this task annually, sometimes with nothing beyond machetes and axes available as tools. The teacher, who as far as the community can tell may be the one primarily benefited through the receipt of school supplies and goods, may bear the brunt of stimulating and organizing the work force. If subsequent problems arise, the community may hold him responsible.

Paramedic. Isolated tribal people ordinarily have access to two sources of medicines: local herbs, either cultivated or wild, and the shaman. Some of these remedies are very effective, but in general, native communities are quick to recognize value in "Western" drugs, both vaccines and medications. The teacher may be the only member of the community who travels to areas where drugs can be purchased and who is trained to dispense them. Most teachers are willing to go the second mile to help their people.

If the teacher accepts the role of paramedic, a new series of pressures may subsequently develop:

- economic (the cost of medicines for the community, of emergency flights, of vaccination flights, and of hospital care may all have to be borne by the teacher unless the community has established funds for these purposes: some villagers without cash are conscientious about repaying with produce, but this may not fill the need for cash to replace the medicines dispensed);
- social (in many tribes it is unthinkable to refuse aid to relatives: as keeper of the medicines, the teacher may face the hard choice between bankruptcy or committing a grave social error by refusing to help insolvent relatives and/or members of the community);
- time (several hours a day may be required to care for the sick, plus night duty for seriously ill patients or long trips to see patients too ill to travel to the teacher: added to a teacher's already heavy schedule, this load may become very taxing, particularly during epidemics).

Storekeeper. In order to meet legitimate needs for his people, the teacher may use his salary to set up a small store. Besides the strain on his salary, additional problems such as finding time to keep store hours, difficulties of transportation and supply, accepting or refusing to sell on credit, and collecting bad debts can all add to the teacher's load.

Counselor. Because of his knowledge of the outside world, the teacher frequently becomes the community advisor. The tribal society experiences stress as knowledge concerning new beliefs, values, and customs is acquired and traditional practices are challenged. The teacher is often asked to explain the new ways, to give counsel, and to help the people choose between old and new practices. This usually involves a considerable amount of time.

OUR CONCLUSIONS: *(1) We must be aware of the number of roles the teacher is trying to fill. If his work load is heavy, he may need help to reduce it. (2) The teacher and the community need to learn to depend on the head men of the village for matters of discipline and community administration, rather than on the teacher. Persons other than the teacher should also be trained to be responsible for medical work, airstrip building, storekeeping, community organization, etc. (Until community members can be trained, it may be possible to "borrow" short-term helpers from other communities.) Sharing of responsibility provides protection for the community in that it helps prevent any tendency the teacher may have to develop into a* patrón *or to exploit his own people. (3) Record keeping needs to be simplified until it falls within the ability of the teacher to complete in a reasonable amount of time. (4) Considering the special situations he faces, the teacher will need some flexibility in the school schedule. (5) Teacher stress is reduced when the community extends aid in construction of the school building and funding and transportation of supplies. (6) Teacher and community stress is also reduced when parents cooperate in helping the teacher avoid problems with students of the opposite sex. Sometimes a parent or the teacher's wife joins the class; some communities may choose not to accept older girls in the school.*

Clarifying the teacher's responsibilities

In view of the foregoing, it is especially necessary that, from the beginning of the bilingual school, the teacher and community together arrive at a clear understanding of what the teacher's role is to be (cf. chapter 11). If this concept remains hazy, it later becomes too easy for the many demands of the village situation to distract the teacher from his main responsibility.

However, if basic priorities have been agreed upon in advance, an important safeguard has been established. Such priorities might be: (1) that the teacher's first responsibility is to hold school—regularly and with adequate preparation; (2) that he will pay for specific services (such as help for clearing his field) in order to have sufficient time for book work; and (3) that he will give counsel when requested, but should not be counted on for many other leadership duties.

It is also necessary to clarify what role the teacher may play in handling the discipline problems of his classroom, i.e., when he is authorized to act independently and when the parents should become involved or what methods of correction will be applied (cf. chapter 13). Procedures may also be set up whereby parents are informed concerning the school and their children's progress. Lists will vary depending on individual communities.

Once initial responsibilities have been clarified, regular opportunities for reevaluation and discussion will assist all concerned to maintain balanced priorities and to correct deviations which may occur. This needs to be a long-term, continuing process.

OUR CONCLUSIONS: *(1) It is essential to provide early opportunity for community discussion to clarify the responsibilities the teacher will be expected to fulfill. His community involvement should be limited to tasks he can handle after dedicating adequate time to teaching and class preparation. (2) Regular reevaluation will be necessary in order to keep priorities in perspective.*

SUPPORTING A TEACHER

Over the years, bilingual school teachers have proved themselves potentially good educators and hardy pioneers, amazingly wise, persistent, and resilient. Taken as a group, they enjoy their work but also, according to the SIL doctors who attend them, tend to show signs of stress (headaches, depression, and psychosomatic illnesses) in somewhat higher proportion than is found in Indian cultures in general. The ratio is not higher, however, than that observable among occidentals employed in high-stress occupations.[2]

Signs of stress become understandable, however, if one considers the complexity of the situations a teacher may face. We have come to realize that administrators need to be alert to the tensions peculiar to the jungle teacher's lot, tensions occurring in addition to those permeating the entire society. Sympathetic understanding, combined with appropriate action, can help to ameliorate strain. Discussed below are items which we have needed to keep clearly in focus.

The teacher belongs to a subculture

A teacher, with his advanced education, finds himself in the forefront of the changes caused by the meeting of the tribal and the national culture. His is the difficult role of attempting to synthesize the two, at least as far as his own behavior is concerned. Symptoms of "battle fatigue" are not surprising, but need to be watched for.

OUR CONCLUSION: *It is important to recognize the strain a teacher feels. Sources of pressure should be identified (they vary with the situation). As much moral support and reassurance as possible need to be provided for the teacher. If his experience or ingenuity proves insufficient to resolve certain problems, suggestions for possible alternatives may be appreciated. Sufficient vacation time also needs to be allowed.*

The teacher feels responsible for the people

In many cases, it is the teacher who has gathered the villagers, often his relatives, from their scattered homes into one location in order to attend school. He feels a high degree of responsibility for their safety and well-being. Since they may have little knowledge either of community living or of how to meet the outside world, he feels that he is the one who has to show the way and help them make community decisions until they are able to do so without guidance. Because of these pressures, teachers often tend to dedicate themselves to community needs to the detriment of class preparation and other school-related activities.

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[2] Robert Silvester (in his article "Stress and the Classroom Teacher," *Instructors Magazine* 86:72–74, 1977) begins by saying: "Stress! It's the worst health problem teachers have to contend with."

OUR CONCLUSION: *The teacher's concern for community members needs to be taken seriously. He may need help in order to meet their needs in ways that free him for his teaching responsibilities.*

The teacher needs administrative and logistic support

In addition to sympathetic understanding, the isolated teacher needs the reassurance of efficient administrative and logistical facilities. (Chapter 10 has already referred to this need.)

OUR CONCLUSION: *High priority needs to be given to providing administrative and logistic support, particularly a smooth-functioning system which supplies salary, books, supervision, and community orientation, without long delays or frustrating red tape.*

The teacher has financial pressures

The teacher, who may never have had much income or experience in handling money, suddenly may receive what appears to be a large salary. At the same time, however, large expenditures, such as the following, may be unavoidable:

- PURCHASE OF FOOD the teacher used to hunt and gather himself, but for which he no longer has time; purchase of food no longer available locally because of overpopulation or because of new food habits learned while away from the village;

- **MAINTENANCE OF ORPHANS** and/or students from a distance who board at his home;
- **PAYMENT FOR HOUSE CONSTRUCTION** if time does not allow the teacher to handle the building himself;
- **JOB-RELATED EXPENDITURES**: travel to and from teacher training courses and district educational offices; room, board, supplies, and wardrobe for teacher training course; purchase of school supplies;
- **PURCHASES FOR THE COMMUNITY**: costs of processing land titles, construction and maintenance of airstrips, medicines, tools, new plants, seeds, animals, etc.;
- **ECONOMIC AID TO OTHERS** in the community as they enter training programs;
- **PAYMENT OF DEBTS OF COMMUNITY MEMBERS** to free them from *patrones*.

Teachers may find this financial world bewildering. Some may make mistakes which occasion hardships and increase anxieties, such as when their funds are stolen or entrusted to embezzlers; large loans and/or debts are contracted; or large investments are made for prestige items (expensive watches, record players), leaving insufficient funds for travel expenses, medicines, and food.

OUR CONCLUSION: *Prospective teachers need to receive orientation in money management. They need to learn to understand what expenses face them and how to apportion their salary appropriately. They would also benefit from information concerning reliable savings programs, such as the services offered by regional banks.*

The teacher experiences special pressures during teacher-training courses

Teacher-training courses have been much appreciated by bilingual teachers. Often, however, the only convenient time for them occurs during the summer vacation period, which allows little break for the teacher after a busy school year. It is important to recognize the accumulation of pressures which can be involved:

- Travel may be difficult. Trails may be muddy, and rivers dangerously swollen. There may be long periods of waiting for airplanes at rendezvous points where food and housing may be inadequate. Trips by canoe or bus may be long and exhausting.
- Teachers, salary in pocket, may become the special target of dormitory thieves, pickpockets, vendors, con men, and prostitutes. They may also encounter salesmen who use very high-pressure techniques.
- The cost of plane flight, food, medicines, entertainment, and supplies for return to his village, as well as mismanagement, may leave the teacher without cash considerably before his training period is over. Pressures mount as he skimps and/or tries to arrange loans to tide himself over.
- Teachers, particularly those with little scholastic background, may find the academic grind hard. Trying to grasp unfamiliar concepts day after day in Spanish (their second language) produces mental fatigue.
- If the year-end reports and statistics which the teacher is required to submit are beyond his ability, frustration can be generated as he struggles with his registers, perhaps at the expense of the classes in session.
- Unfamiliar philosophical, ideological, and religious views are often presented during the teacher training courses. Teachers struggle to understand the implications of new concepts such as: (1) nationalism/socialism/communism/capitalism; (2) Catholicism/Mormonism/Evangelicalism/Seventh Day Adventism; (3) agnosticism/atheism/naturalism/humanism.
- The native teacher is usually highly motivated to become a "good" citizen and is looking for ways in which he can identify with the national society. Depending on the person who seeks to influence him, "being a good citizen" has been represented to include such diverse qualities as: (1) loyalty to flag and country; (2) good ability in the dominant language; (3) mistrust of foreigners; (4) being a hilarious party-goer (Western style); (5) being fervently religious; (6) being a responsible leader; and (7) loving Western arts.

- Due to existing status systems, he often receives a bewildering diversity of treatment from those he contacts: (1) respect as a professional (by understanding professors); (2) counsel (by specialists); (3) flattery (by con men); (4) belittling and patronage ("Here, let me count your money for you."); (5) ridicule (by hostile "superiors"); (6) orders to do menial service (by people who expect Indians to be peons); and (7) friendship (by a few, mostly peers). The teacher learning to live in a new culture does not yet know what the real boundaries and norms are. What is accepted behavior? What values should he adopt? What should he reject, and on what basis, if he wants to be a good citizen?
- Since teacher-training courses provide an opportunity to present important orientation to representatives of many areas, a tendency has sometimes developed to place emphasis on record keeping, community development, health, school gardens, and other matters. It is taken for granted that the teachers realize that communication of academic knowledge is their first priority. In fact, the hard-pressed teacher may not have this concept well established, and many have bowed to the pressure to perform in peripheral areas in order to please their instructors, or a supervisor whose only remarks may have been directed towards the school registers and the appearance of the school building. As one teacher put it, "A good teacher keeps his school records well; it doesn't matter what he does in the classroom."

OUR CONCLUSIONS: *(1) Breaks should be scheduled between the school year and training courses, or else the teacher should be allowed time off from the training course occasionally to provide time for rest, reflection, and personal needs. (2) Whenever feasible, it is preferable to hold the training courses in tribal locations where the environment is familiar, accustomed food is available, and the pressures of "civilization" are fewer than in city or market-town locations. (3) Teachers would find it helpful to receive orientation in national values and etiquette (in simple language) to give general guidelines for conduct in the new culture. (4) We need to be aware of the struggle for* *identification going on in teachers' minds. (5) Training-course staff should be oriented to be conscious of the teacher's special needs; to be ready with extra tutoring in difficult subjects; to speak slowly and simply; to provide protection from thieves when possible; to reassure with positive, friendly attitudes; and to provide good examples (see chapter 6). (6) It is important to facilitate travel to and from training courses as much as possible. (7) Orientation and curriculum of teacher-training courses should highlight teaching as the teacher's primary responsibility.*

The teacher and his family have special home needs

These special requirements include:

- The teacher's wife may be required to move to a community where she has neither friends nor family. If the move also entails a new ecological situation, she may have to cope with unfamiliar conditions and diet. Given the shyness of many tribal women, considerable pressure may be felt, particularly if the women of the new community are slow in accepting her. In new locations she bears the brunt of child rearing without the help traditionally provided by relatives.
- In at least some of the cultures of Amazonia,[3] a bilingual teacher's wife and family seldom receive from him the amount of time they would normally expect. During her husband's absences, the wife faces alone such crises as floods, illnesses, fire, and death. The fields may suffer for lack of attention; chickens and ducks may be lost to predators; the children lack paternal attention. Interestingly enough, when wives have rebelled, the husband has often been too busy to realize that anything had been going wrong.
- Ordinarily, the teacher attends summer school each year. If his wife does not, a disparity of education and orientation may result which sometimes leads to tensions. We have also noted that teachers from tribal cultures who attend summer

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[3] Orna R. and Allen Johnson, "Male/Female Relations and the Organization of Work in a Machiguena Community," *American Ethnologist* 2:644–45, 1975.

school without their wives are more prone to engage in culturally unacceptable liaisons. Wives, left alone, are also vulnerable. Whether or not there is infidelity, suspicions and recriminations can result.

- In cultures where polygamy is considered very natural and a sign of prestige, strong pressures may be exerted on a teacher to take more than one wife. Ambitious women have been known to force themselves or their daughters upon the teacher, even trapping him "if necessary." It may be difficult for a man to refuse in spite of the problems it will bring him in relating to mestizo administrators.
- If the teacher and his wife open their home to boarding students, as is often the case, they have the added responsibilities of foster parents—responsibilities which they take seriously. The wife assumes the additional responsibilities of being cook for the group, and young mothers in particular may find the work heavy when coupled with their own child-rearing and homemaking responsibilities.
- The wife may also become chief hostess for visitors to the community, thus depleting the food supply from her own field. If, as is the case during her first year in a community, she should be dependent on the good will of others to share food with her, the need for additional food for visitors may increase tensions.
- Domestic help is frequently needed to lighten the wife's workload. It seems, however, that this help must be chosen with care, preferably from among relatives, or additional problems will result.

OUR CONCLUSIONS: *(1) We need to study traditional family patterns and forewarn couples of potential problems, suggesting alternatives to help avoid pressure buildups greater than the wife can bear. (2) The teacher may need orientation on the importance of regulating his workload to take his family's expectations into consideration. He may also need his wife's and his community's support in helping him live up to national ethics. (3) The teacher will find it advantageous to inform his wife as he gains new knowledge so that her orientation* *parallels his. School attendance for the wife has often proved helpful. (4) In at least some cultures it is important to make provision for the teacher's wife to accompany him to training courses, and to provide training for her--sewing classes, child care, or whatever the wives identify as a felt need. (5) It would be valuable for the wife to be encouraged by official recognition of her role and the sacrifices she makes to enable her husband to be successful. Official letters of appreciation, diplomas for length of service, and an honor list for those assigned to hardship posts may be awarded.*

SUMMARY

In Amazonia it has been important for administrators to gain a clear understanding of the unique factors that affect teacher selection: the pressures that a teacher faces in his community relations, his training, and his work, and the implications of these for his wife and family. As factors are identified, they can be balanced to help provide a more satisfactory arrangement for all concerned.

(Loos, 1963)

A community development promoter inspects the harvest in Napuruk, an Aguaruna village (see chapter 20)

(Lance, 1969)

Boards for the Ticuna school are cut at the community sawmill (see chapter 20)

13

THE PROGRAM AS IT RELATES TO THE PUPILS

A good deal of effort has been expended in the Peruvian experiment in trying to tailor the school program to the reality of the native child. Field linguists, administrators, and teachers constantly have sought to be alert to the cultural and environmental, as well as the linguistic, factors that affect the pupils' learning processes.

From these observations have come a number of insights, some of which have been incorporated into the program as it developed, some of which were made too late or for other reasons have not been implemented. The list that follows is not exhaustive, but all the items mentioned are lessons that we would want to keep in mind if there were occasion to initiate another program under similar circumstances.

BEGINNING WITH ADULTS (cf. also chapter 11)

Experience among groups of the jungle suggests that bilingual education tends to be most successful when it begins with the adults of a community. Beginning with the adult population will remove a large percentage of the problems that occur when the school program is begun first among children. However, if there is already an ongoing children's program, if the decision to teach children first is irreversible, or if (after a period of adult instruction) it is time to begin a children's program, the following pages list issues that we have found to be important.

Beginning with children

Trends observed in preliterate societies in which schooling is provided first for the children indicate that age and maturity are crucial factors.

Flexibility as to age of admission

Physical and emotional maturity is conditioned by many factors, among them cultural and family characteristics, nutrition, parasites, and environment. In the jungle, partially because of lack of orientation to the basic premises of the classroom (see the next section of this chapter), we have found, especially in isolated ethnic groups, that few children are mature enough to be able to settle happily into a full-fledged bilingual school program before they are eight years old. While there are notable exceptions, particularly among school teachers' families and among communities with a longer history of contact with the outside world, the generalization holds true.

Trends among six- and seven-year-olds. Six- and seven-year-olds are often eager to enter school, but frequently lack coordination and an attention span sufficient for them to perform well except in a nursery-school type orientation program under a specially trained and equipped teacher. However, in most bilingual schools, neither a special teacher nor the special materials are available or feasible.

Another factor which particularly affects these children is that in a 50-minute class period, a teacher with three to five levels may have only 10 to 15 minutes to present the lesson to each section. Young children often lose interest under these circumstances. The results of being obliged to continue in such a situation have included mental blocks which handicap the child throughout his school career, behavior problems which disrupt the entire school, and real distress for both teacher and students.

If social pressures, parental enthusiasm, and/or government regulations require that a child begin school at six, the bilingual teacher may be left with no alternative but to enroll pupils he knows he cannot handle adequately. Because of his isolation, few administrators see his subsequent frustration and discouragement as he struggles under the burden.

OUR CONCLUSIONS: *(1) The teacher will need to consider carefully before admitting each new class of beginners. Is he able to dedicate the time, both for preparation and in the classroom, needed for an additional preschool class? If not, he should try to find alternatives. Perhaps another teacher can be trained, or perhaps the beginners could be allowed to wait a year before entering school. (2) The teacher will need to realize that considerably more maturity will be required for children to function happily in a classroom with a heavy section load than in one with a light section load.*

Trends among eight-year-olds (and older). In contrast to the younger children, those eight years old or older usually make the adjustment to school life quickly and are able to manage reasonably well, even in an overloaded classroom. The enthusiasm with which most of them study is in marked contrast to the discouragement often observed in younger children. Much teacher time and money has been wasted trying to teach children who were not yet mature enough to handle the classroom situation.

OUR CONCLUSIONS: *(1) It is important to allow flexibility in the age of admission of children, particularly in isolated groups. The criterion for admission should be maturity rather than chronological age. (2) Active orientation for parents and community is necessary to alert them to problems precipitated by premature enrollment of children in school. (3) Teachers will need training to recognize the signs of physical and emotional maturity which indicate a child's readiness for a classroom situation. For example: How long is his attention span? Does he demonstrate adequate coordination and manipulative skills? (4) Trial periods are sometimes helpful in borderline cases. The child can be allowed to attend classes with the understanding that in two to four weeks a decision will be made as to whether he should continue. If he enjoys being in school and is able to* *do the work, he continues after the trial period as an enrolled student. (5) Teachers are helped by orientation in strategies for averting problems by preventive methods, i.e., (a) varying activities; (b) programming enough work to keep students occupied; (c) allowing early recesses when work is finished or when younger children seem restless; (d) separating troublemakers; and (e) acting (in culturally acceptable ways) to establish his authority in the classroom.*

Trends among teenagers. We have noticed that in many tribal areas the majority of students do not expect to complete more than primary education. Consequently, there is not the same need for them to begin their studies early as there is for a child who is expected to pursue secondary, and even university, courses. In fact, some children who had terminated their primary education in the tribe, but were not yet mature enough to be considered adults, have been observed to be in a sort of limbo. In their case, it would have been advantageous for them to have begun their primary education a little later, finishing in their mid-teens—a suitable age to enter the adult world in many ethnic groups, especially for girls.

CULTURAL DIFFERENCES

As has been mentioned in chapters 6 and 7, children of isolated areas have not been exposed to many of the concepts that are basic to a classroom situation. For them, entering school is entering a new system, structured according to a set of assumptions very different from those to which they are accustomed. During the considerable period of time it may take for the child to reorient himself, little actual teaching of academics can be accomplished.

Presented below are some of the major areas of orientation needed by tribal children entering school for the first time.

Preschool orientation

The teacher must introduce the basic concepts involved in reading, writing, and performing mathematical calculations;

must explain the purpose of the school and proper care of school property. Additionally, he must emphasize the fact that there are: (1) activities considered proper and improper in the classroom; (2) times for group activities and times to work alone; (3) times to work, to play, to be quiet and to listen; (4) times to help each other and times not to help; (5) times to control oneself, to respect others' rights; and many similar ideas.

OUR CONCLUSIONS: *It is necessary to: (1) Prepare a nursery-school type of orientation geared to the needs of the students. (2) Train the teacher in (a) recognizing physical and emotional stages of children's development at beginning levels and how to meet their needs for praise, short-span lessons, etc., and (b) using the materials prepared for this level.*

Orientation to a new method of learning

In some of the tribal cultures with which we are familiar, one learns by watching. Children observe their parents, and others, for as long as necessary until they feel sure that they have mastered the techniques of the process in question. Explanations are not expected and are seldom given, yet when the child makes his first attempt, he ordinarily does very well. It is a great embarrassment to perform poorly; it demonstrates pride and too much haste. The modest person waits until he is able to do the work well.

Schools, on the other hand, do not expect perfect performance initially. Instead, students are required to practice to perfect their skills. Children may experience severe internal conflicts if they are pushed to try what they know they cannot yet do successfully.

OUR CONCLUSIONS: *In as many ways as possible the educational system should be adapted to the learning patterns of the culture. Where there are differences between tribal and western models, it is important to be aware of them. If teaching new learning methods is unavoidable, the following suggestions have proved helpful: (1) Allow for the lapse of time* *required for children to reorient themselves to the culture of the classroom. (2) Help the teacher recognize the differences between the native culture and school culture, and develop ways to explain them to the children; i.e., the teacher may explain to the children the difference between learning by watching and learning by doing and coach them in the method employed in the classroom. (3) Orient the teacher to: (a) provide practice whenever possible for the points the children find most difficult, and (b) coach and encourage them.*

Orientation to generalization

Native children frequently seem to learn each skill separately: how to peel vegetables with a sharp knife (at very early ages), how to skin an animal, how to carve an arrow point, etc. In their way of life, many tasks apparently classify as isolated items, with little or no obvious relationship to other skills. They enter school not expecting any given piece of knowledge to relate to any other piece.

Schools, however, are based on the pattern of generalization. Main categories are subdivided; then information learned about one subject is applied to other areas. Knowledge thus transferred and related is made useful in many ways.

It is not unusual for native children to go through a period of some bewilderment before they are able to understand and to adapt to this new way of utilizing knowledge. A further adjustment is required to understand the use of abstract symbols.

OUR CONCLUSIONS: *(1) It is essential to allow for the reorientation required as the child learns to generalize or to recognize abstractions. (2) The teacher needs training to recognize where problems of generalization or abstraction occur in the subject matter he must teach. (3) The teacher may need help to find the explanations and drills which will prove most advantageous in his cultural setting; for example, a special mathematics workbook was prepared for the Machiguenga of Peru to help students grasp the concept of there being only one fixed symbol for each quantity, a device made necessary because the tribe had no fixed system of numbers beyond one.*

CLASSROOM CONDUCT (cf. chapter 12)

In cultures where children grow up with behavioral norms and familial duties different from those represented by Western culture, the matter of maintaining order in a classroom may become problematic for the teacher. It is impossible for him to teach or for the children to learn unless a certain amount of quiet prevails, the students pay attention to the lesson, and school supplies are not destroyed.

The teacher enters the classroom with the basic assumption that he will be able to enlist sufficient cooperation from the students in order to communicate new ideas. The students, however, often enter with the same basic assumption held in their homes, i.e., that they may do whatever they wish, with no need for restraint, deference to others, or caution in the care of property.

Certain cultures have well-established lines of authority. In these societies, the teacher usually can solve discipline problems by working closely with parents and community leaders. As they learn to have confidence in his judgment, attend classes to observe for themselves, and discuss problems together, the elders cooperate in backing the teacher and help him to orient and control the children.

However, in cultures where adults frown on coercion of any kind, the teacher may neither be supported nor appreciated by the parents for trying to maintain order. If he disciplines the students, he then risks a high level of community anger; if he does not, he may accomplish very little in the way of teaching.

OUR CONCLUSIONS: *(1) Teacher and community will be helped greatly by having a clear understanding regarding classroom discipline* before *classes begin. The teacher should discuss his plans for keeping order with the parents and secure their advice and consent for everything he proposes to do. (2) Suggestions such as the following will help the teacher maintain a pleasant classroom atmosphere: (a) praise as much as possible; (b) avoid clashes by using some effective strategy such as changing activities, separating problem-makers, providing a* *recess or rest break, programming enough interesting work to keep pupils' attention, etc.; (c) give only necessary orders; (d) give order (or request) once; (e) remind once (i.e., allow for forgetting, dawdling, etc.); and (f) act to implement the order/request. Consistency in these six steps usually helps resolve most classroom problems. (3) The teacher should be oriented to rely on parents or community leaders to handle all but minor problems. Even in communities where this is an innovation, good communication and cooperation between community and school has proved very effective. The teacher should* not *attempt stringent measures without parental consent. (4) Inviting adults to attend classes (either permanently or as observers) often helps control children.*

SUMMARY

Although education tends to be more successful when begun with the adults of a community, children's programs can succeed, especially if careful attention is given to the cultural and environmental factors (as well as linguistic factors) which affect the students. These factors make it advisable to be flexible about age of admission to school, allowing time for the child to acquire the basic concepts usually imparted in preschool-type programs, to become used to new methods of learning, and to learn the technique of generalization. Classroom discipline varies greatly from culture to culture, and it is essential for the teacher and the community to reach a thorough understanding concerning it prior to the beginning of classes.

14

THE BENEFITS OF BILINGUAL EDUCATION

Bilingual education in the Peruvian jungle has brought numerous benefits to minority language groups. Native people, both children and adults, frequently comment that by attending school one can:

- LEARN TO WRITE LETTERS (the ability to communicate with distant relatives and friends is a new and much-appreciated facet of life in Amazonia today)
- ACQUIRE ALL KINDS OF IMPORTANT KNOWLEDGE through books
- LEARN TO SPEAK SPANISH (which enables one not to be afraid of outsiders and to communicate with them)
- LEARN TO ADD, SUBTRACT, AND COUNT MONEY to avoid being deceived when buying and selling
- PROFIT FROM PRINTED INSTRUCTIONS (such as instructions on pill bottles or signs in city streets and store windows)
- BE PREPARED FOR HIGHER EDUCATION and job opportunities never before available to the native peoples of the jungle
- LEARN WITHOUT THE DIFFICULTIES ENCOUNTERED BY OTHERS who have attended schools where only Spanish is spoken.

Since these expressions have been spontaneous, one can safely assume that the native people value bilingual education highly. The types of advantages they usually mention fall into the general categories given below.[1]

MORE EFFECTIVE LEARNING

A Machiguenga bilingual teacher tells of sending his older daughter to a Spanish-speaking boarding school. She was well treated, loved her teacher, and began to speak a fair amount of Spanish. A younger daughter attended the bilingual school. After approximately three years of study, the younger daughter, to her father's surprise, outstripped the elder in her ability to read, write, and do arithmetic. This general tendency of students to learn more easily in bilingual schools has been repeatedly commented on by members of many language groups.

In places besides Amazonia studies have confirmed that learning is most effective when begun in the mother tongue. The National Indian Bilingual Education Conference, held in Albuquerque, New Mexico in April of 1973, declared that: "The most successful educational method is one that instructs in the local language and then proceeds to develop literacy.... Traditional monolingual methods have resulted in below standard achievement by American Indian students which, in turn spawn difficulties in secondary and higher educational pursuits, exacerbate acculturation problems, present significant barriers in securing adequate employment, and constitute a serious hindrance to the full enjoyment of life and its benefits."[2]

A report from the Seminar for Educational Planning for Multilingual Countries attended by bilingual education representatives from Peru, Bolivia, and Ecuador (Solá and Weber 1978:C-10) states the same principle in different words: "The linguist... prefers that the teaching of reading be in the mother tongue because functional reading and writing is thereby attained much more rapidly.... Without difficulty, the reader can generalize the skill of reading and writing in his mother tongue to any other language which he knows how to speak."

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[1] For part of the material in this chapter, I am indebted to my former colleague, Dr. Harry Boonstra, who currently teaches at Hope College in Holland, Michigan.

[2] From a mimeographed document of the U.S. Department of the Interior (published by the Indian Education Resources Center, P.O. Box 1788, Albuquerque, NM 87103).

Reduced cultural shock

- The local bilingual school allows the child to remain at home, or close to home, avoiding the traumas caused by forced abandonment of the home language and culture while at the same time recognizing the dominant language. These are advantages valued highly by jungle parents, many of whom fear the gap caused by sending their sons and daughters away to Spanish-speaking boarding school and prefer to keep them out of school altogether rather than to permit the separation. In some cases, vernacular-speaking boarding schools within the tribal area have been established for older students, and have had fairly good acceptance. In other cases, older students travel daily to a nearby village to attend a bilingual school, even though it is difficult and sometimes dangerous for them to do so.
- Within the classroom, the students are not forced into rejection of their mother tongue and culture (often an emotionally damaging process), and adaptations of methods and materials to the vernacular language and culture enable them to participate without undue psychological stress. As Wipio has already pointed out in chapter 5 of this volume, it is much easier for children to adjust to a teacher and language situation with which they are already familiar and then to learn the dominant language by means of second-language methodology. Research in Ecuador (Ortega 1978:39–43 and 53–55) also supports these conclusions.

Studies undertaken by UNESCO in 1951 (Fishman 1972:691) reported that it is best for pupils to begin studying in their mother tongue, not only because they understand it best but because thereby "the break between home and school [is kept] as small as possible."

Solá and Weber (1978:C-9) state:

> If a child is presented with primary education based on a different material culture, which utilizes norms of conduct unfamiliar to him and is oriented by symbolic values which have never before been part of his experience, he suffers massive cultural shock. Perhaps this explains why the child of another culture does not respond to the teaching and is many times classified as incapable, or even as mentally retarded.

The anthropologist does not reject the new culture which is to be imparted to the child; rather he suggests that curriculum content and teaching methods conform to the child's previous experiences and that the new elements be interwoven into the educational experience.

- The jungle abounds with individuals who, having been educated in a second language—the national language—have abandoned their mother tongue and cut themselves off from family and friends, refusing to be identified with them. It may be that long-term satisfaction is thereby attained in some cases, but those that we have observed can scarcely be called successful. The break is made at the cost of familial goodwill and support, and usually the individual, in spite of his alienation from his own culture, is not as well received in the new society as he wishes to be. The sense of loss to the rejected family members can also be severe.

In contrast, most of the students who go to bilingual schools acquire a healthy appreciation both for their own language and culture and for that of the majority. They are glad to belong to both. Where bilingual education has had strong influence, as among the Shipibo and Aguaruna, a trend towards increased pride in native dress and traditional crafts and customs has been evidenced along with increased ability to communicate with the outside world.

- Stresses caused by contact with the outside world are reduced through improved ability to understand the dominant language and culture. To the extent that they are fluent in the national language, individuals can master their circumstances and diminish the possibility of being their victim.

Progress from the familiar to the unfamiliar

The learning process is founded on sound educational principle—beginning with the familiar and expanding to the new experience. (See chapter 17 concerning the principle of culturally adapted education employed in the bilingual schools.)

Solá and Weber (1978:C-10) corroborate this principle by stating: "The psychologist insists that the elements used in teaching have meaning for the child.... The direct implication for the teaching of reading is that it should be in the mother tongue,... and that beginning lessons should be based upon natural expressions which the child already knows in oral form."

Improved ability to learn the second language

That education in the vernacular improves and develops a student's native ability to learn a second language has been effectively documented by Marleen H. Ortega (1978). By means of carefully constructed and controlled tests, she compared the degree of Spanish assimilation attained by the pupils of two similar Quichua-speaking communities in Ecuador—one with a bilingual school and one with a monolingual Spanish school. Not only did the pupils from the bilingual school score higher in academic subjects, but their command of Spanish—after three years of formal study in the bilingual school—was better than that of students who had studied exclusively in Spanish.

This corresponds to our observations in the bilingual schools of Peru, but is particularly interesting in the light of another of Ortega's observations (1978:57): "... many of the children in Colta had attended monolingual schools in Spanish where they were considered 'incompetent'. Nevertheless, upon attending a bilingual school, they proved themselves to be capable students, and—according to their parents—were 'now learning something'." She continues, saying of these same students: "It is clear that in both towns the children of preschool age are monolingual Quichua speakers. However, in the lapse of three years, the students of the bilingual school demonstrated more knowledge of Spanish[3] and the materials studied in that language."

This study also proved that teaching children to use a second language does *not* imply replacement of their first language—an important point relating to the respect and appreciation due a student's own language and culture.

Ortega's charts, which need to be studied in detail in order to understand the complex factors involved, show the following percentage distribution of pupils tested:[4]

TABLE 14.1. COMPARISON OF DEGREE OF COMPETENCE IN SPANISH BETWEEN PUPILS OF MONOLINGUAL SCHOOLS AND THOSE OF BILINGUAL SCHOOLS

	Colta (bilingual school)			Calhua (monolingual school)		
	Out-standing	Fair	Unsatis-factory	Out-standing	Fair	Unsatis-factory
Mathematics:	80%	20%		40% 60%		
Spanish Grammar:		Low but better than Calhua			Low	
Social Science:	90% 10%			50% 50%		
Natural Sciences:	Similar competence			Similar competence		

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[3] The type of Spanish knowledge referred to is not merely theoretical (rules of grammar, for example): rather the children gradually internalize and master the structure of the second language until they achieve competent comprehension and production.

[4] The chart presented here is a summary of three tests given in Spanish to three groups of different ages. (For full information see Ortega 1978:119–52.)

UNESCO specialists (Fishman 1972:692 and 699) support Ortega's findings. According to them, experience in many places has demonstrated that an "equal or better command of the second language" is acquired when schooling begins first in the mother tongue.

Gray (UNESCO 1956:73), citing studies by Hildreth and Horn, gives reasons for the above:

> A child's ability... to recognize and pronounce words, to grasp the meaning of sentences, to follow a sequence of ideas, or to read orally, are all influenced by his mastery of the language.... Many failures in reading are due to inability to interpret readily the language used.

If this is the case with native speakers, it is understandable why the problems are even more acute across language boundaries.

Baucom (1978:127), speaking from years of experience in Africa, states: "It is, in my opinion, much more successful to teach people *home language literacy first* and then put them into a second language programme. Thus a reading ability in some language can often be seen as a prerequisite for entering a language-learning course."

Enhanced language and analytical skills

Some studies indicate that bilingual education may help to promote language skills and facility in problem solving. Comparison of a group of monolingual and of bilingual ten-year-old children from six Montreal French schools (Lambert 1972:154–55) measured attitudes toward the English and French communities and tested verbal and nonverbal intelligence. According to Lambert, "Contrary to previous findings this study found that bilinguals performed significantly better than monolinguals on both verbal and non-verbal intelligence tests.... The bilinguals appear to have a more diversified set of mental abilities than the monolinguals."

Cummins (1977:83) comments on the social context in which the above study was conducted and points out that it, along with other "positive" studies, "... generally involved middle or upper class subjects whose first language is dominant, or at least prestigious, and in no danger of replacement by their second language.... These children are adding another language to their repertory of skills."

Similarly, education in Amazonia is generally observed to be most successful in ethnic groups where the sense of cultural worth is sufficiently strong that Spanish is added to the repertory rather than learned as a way of escape from what is felt to be a humiliating position. (This is not to say that it may be even more needed in such circumstances.)

Although not quantitatively compiled, reports from bilingual teachers and parents of bilingual school children who have had experience in monolingual Spanish-speaking schools tend to confirm another of Cummins' observations (1977:81), which is based on a series of recent studies: "Bilingualism can accelerate the development of general intellectual skills.... [It] promotes an analytic orientation to language... and several studies suggest that learning a second language increases children's sensitivity to feedback cues."

PROMOTION OF SELF-RESPECT AND A SENSE OF SELF-WORTH

Education as an individual and communal prestige factor

Having a school contributes to the community members' sense of self-worth and of self-respect. A commonly heard statement among tribal peoples of the jungle who are commenting on the value of education is that "we used to be illiterate but now that we have entered school, we can read, write, add, and subtract like other Peruvians." The statement reflects a sense of having had a felt need met.

This sense of pride in having a means of education in one's own community is so strong that even though internal problems may cause villagers to be very unhappy with some aspects of the school program, we know of no community which has requested that their school be withdrawn.

Promotion of ethnic pride

A legitimate pride in the native language and culture is developed as the community sees its language used in written form as a vehicle of instruction and as a means of self-expression. (Chapter 22 discusses this from the viewpoint of the jungle experience.)

The need for linguistic and cultural recognition is also expressed by the declaration of the National Indian Bilingual Education Conference:

> The right to one's own language and culture is inherent in the concepts underlying our national ideals.... Many... believe that schools have an obligation to provide education which is not designed to shift students unilaterally from one culture to another. American Indian students are representatives of viable, valuable cultures... which have a right to continue their existence as unique cultures.

Promotion and development of cultural heritage

Folk tales and other parts of the cultural heritage can not only be preserved but also enjoyed by new readers as members of a given ethnic group are able to write them for themselves and for others. (Chapter 22 treats this important aspect, and chapter 19 demonstrates the value placed by the Amuesha people upon their own writings. The Amuesha, like most jungle peoples, consider folklore stories their favorite type of literature.) In this regard, the National Indian Bilingual Education Conference stated: "Establishment of a bilingual program for American Indian students encourages the development of educational materials relevant to Indian history, legends, folklore, artistic expression, and characteristic lifestyles by recognizing that the local culture is a legitimate source of study and interest."

Feeling of equality

The appointment of a local teacher demonstrates to members of the native community that they are considered equally capable of assuming responsibilities connected with the majority culture.

Solá and Weber (1978:C-9) illustrate the kind of respect native peoples covet—and merit—when they state: "Bilingual bicultural teachers would be the best instruments for implementing a curriculum conceived in this form, and even for participating in its preparation." Training programs now in progress are preparing representatives of various language groups of the jungle to participate in building their own curriculums and in textbook preparation.

Increased independence

Education helps the tribespeople become independent, with their own recognized leaders and representatives to national governing bodies and organizations. It also enables them to acquire the skills and trades needed by the society, freeing them from dependence on outsiders. This is the case, for example, with the Ticuna, whose radios and tape recorders are repaired by a skilled native technician. Among the Piro, Chayahuita, and Aguaruna, and on a larger scale among the Ticuna and Machiguenga, trained boatmen and mechanics from the native community make possible the transport of produce to market, without the need of depending upon majority-culture middlemen who historically have controlled trade by monopolizing transportation. The ability to make decisions independently is an important aspect of this process.

According to Solá and Weber (1978:C-8):

> Minority languages and cultures, which carry high symbolic value for their users, can become the means of strengthening an individual's dedication to his community, and his region. Two results of this can, perhaps, be anticipated. The region would be protected from the disintegration which can result from national-level intervention, which sometimes is blind to linguistic and

cultural considerations. And, in the case of rural bilingual zones, it would slow down heavy emigration towards the cities, which, as we know, is producing devastating socioeconomic effects in metropolitan areas.

A defense against exploitation

Bilingual education gives the ethnic groups a necessary, and recognized, protection against exploitation by outsiders. Illiterate adults now ask their children, or educated adults, to accompany them as they buy and sell. Teachers accompany community representatives when large transactions are involved, such as the sale of logs for lumber, the sale of community harvests, or the purchase of cattle. The ability to read scales, multiply, measure lumber, count money, and converse about these matters in the trade language has considerably increased the minority groups' probability of receiving fair treatment.

Furthermore, a knowledge of numbers brings self-assurance. The Arabela and other groups have commented on what a satisfaction it is no longer to be in doubt as to whether they have received—or been charged—fair prices. By means of simple arithmetic, they can calculate the correct amounts and can allay their suspicions—an obvious advantage both to themselves and to those traders and *patrones* who do seek to treat them fairly.

Adults, informed through the bilingual school about the laws of their country, have been able to solicit land and health services and have been able to take advantage of other services available to them.

Another less commonly recognized aspect is the defense this same knowledge provides within the culture. Machiguenga women, who lack an indigenous system of fixed numbers, want to learn how to count so that they can know for sure if all their chickens have been safely penned up at night or whether they need to look further for strays. Their peace of mind is considerably improved if they know exactly how many balls of spun cotton thread they have stored away, rather than worrying that one is missing—probably stolen. Trading can be conducted on a more equal basis if everyone understands the value of produce or crafts. In these and many similar ways, education proves beneficial within the group.

Promotion of a common identity

The schools have also promoted a growing awareness of the jungle people's common identity. In many areas settlements, even within ethnic groups, are so isolated from each other that traditionally there has been very little knowledge or concern for each other's existence. When representatives from these scattered villages began to attend teacher-training courses and conferences (see chapters 6 and 9), they began to establish friendships both with those in their own language group and with colleagues from other groups. Their new sense of brotherhood, carried back and communicated to fellow villagers, has resulted in a new solidarity within and between ethnic groups. Increased optimism is present since there is now the possibility of approaching goals and problems as a group rather than individually.

Citizenship and patriotism, respect for the nation, and appreciation for its history—all new concepts to the isolated groups of the jungle—have been effectively and wholesomely taught by the schools. It has been encouraging to see the native people's warm response when they realize that they belong to a larger community, one in which they and their language are considered so important that special efforts have been made to provide them with education and the means of forming links with the larger society.

This sense of identity between members of the same group, members of other groups, and with the outside world has been greatly fostered by the newly acquired ability to communicate through letters. Now isolated villages and distant family members can remain in contact with each other. Invitations can be extended (to programs, football games, area business meetings). Help can be summoned (to stem epidemics, to provide technical assistance, etc. Requests to authorities can be made. The mail carried by canoe, and by SIL pilots (in lieu of other postal systems) between different tribal communities, as well as between these communities and the outside world, provides deep satisfaction to all and has demonstrated that hundreds of comparatively new literates now respond to the written word as they would to the spoken word.

Improved career opportunities

In the jungle, bilingual education has not only improved career opportunities for its students outside the tribal areas, but has bettered the lot of those who continue within the community by providing new job opportunities—carpentry, transportation of goods and people, mechanics, teaching, medicine, animal husbandry—and by helping those who continue as farmers to market their produce at fair prices. Numerous communities throughout the jungle have organized sawmills, cooperatives for the sale of agricultural products, health posts, and small stores. The Shipibo have developed a cooperative for the production and sale of pottery and artifacts.

Outside the tribal area a limited but increasingly greater number of bilingual school graduates are going on to secondary schools and technical and university training, and one young woman of the Piro group is within two years of graduation from medical school. An encouraging number of these professionals are returning to their communities and using their training to benefit their people.

That this trend is not merely an isolated case is made clear by the National Indian Bilingual Education Conference meeting which underscored the career opportunities opened to bilingual school students of their area:

> Adoption of bilingual programs tends to bring an end to the deprecation of local culture elements and values by the schools, stimulates better communication between the

community and the schools in solving educational problems, effects a positive student self-image, provides more effective use of both English and Indian languages, fosters higher achievement levels in academic performance, encourages more successful secondary and higher education careers, eases the obtainment of employment, allows genuine options for American Indian students in choosing a way of life, and facilitates a more harmonious relationship between American Indian cultures and the mainstream of society.

GRADUAL EXPOSURE TO THE MAJORITY CULTURE

The school helps the community adjust to the inevitable impingement of the outside world in a somewhat relaxed way, and—most important—at a pace with which the members of the community are more able to cope.

- The teacher, a member of the community, assumes a major role in helping the group in its adjustment to the national culture. For example, cooperation with the teacher helps the community become accustomed to broader organization around local leadership—a necessary step towards more effective participation in the national life.
- The procedures for discussion and the concepts of cooperation are frequently learned in the establishing and maintaining of the local school.
- The cooperation of the community with the national educational system provides a concrete example of how to participate in the national life without losing one's own cultural identity.
- Many helpful concepts taught in the school filter through to the community, i.e., hygiene, the concepts of reading and mathematics, and news from the outside world, to mention a few. As a result, the entire community becomes aware of its relationship to the larger society.

CONCLUSION

Limiting factors

In spite of the benefits of bilingual education, there are hazards, of course, in introducing changes of this nature. The process of adaptation can be painful. Obviously, caution and forethought should be exercised by administrators initiating such programs.

We have found also that the ideal situation almost never exists. Small ethnic groups are reached by the educator many years after contacts with the outside world have been initiated. The people themselves have already developed opinions about and ways to cope with the impingement, with varying degrees of "success" as they see it. Governments and agencies charged with responsibility for Indian affairs have chosen certain policies. The educator works within the context of all that has gone before, with the parameters of his influence limited by it. His challenge is to provide the most long-range benefit possible to the tribal group, with the least possible disturbance.

Regulations, budgetary limitations, isolation, and social and cultural factors all serve to complicate the educator's task. Although guided by his ideals, he must constantly settle for what is possible. At the same time, it is always necessary to keep in mind the anthropological code of ethics that "work should not 'adversely affect... the lives, well-being, dignity, and self-respect of any portion of the community' unless the negative effect is minimal and in the long run positive" (Almy 1977:287).

Alternatives

Although it is often difficult for the educator to know how to proceed wisely, especially when a large number of factors are already predetermined, the concerned resource person is usually able to attain solutions which, though less than perfect, are better than the alternatives. To illustrate this, let us consider the three other basic alternatives to bilingual education for minority groups.

- TO DO NOTHING. Where no, or insufficient, positive action has been taken to ameliorate the effects of contact with the outside world, hundreds of societies have been decimated or become extinct through disease and exploitation. Even if they survive, history abounds with examples such as those of the Huitotoan groups and the Cashibo of Peru which show that lack of constructive intervention immediately after the first violent contacts with the outside world proves demoralizing and destructive. Only in recent years, with the aid of modern medicine, bilingual education, and other government programs, are the Huitotoan groups and the Cashibo recovering a semblance of equilibrium. Abuses and killings by the "white man" decimated these groups during and after the rubber boom of World War I.
- TO ISOLATE. Some tribal groups have been alloted large reservations, and outside contact is prohibited. However, is it ethical to impose a zoo-type policy on other human beings, arbitrarily limiting their freedom of choice?
- TO EDUCATE IN THE LANGUAGE OF THE MAJORITY. This practice is no longer considered productive by today's best educators. George Blanco (1977:5), quotes Andersson and Boyer (1970), Saville and Troike, (1971), and von Maltitz (1975), saying: "Such authorities address the importance of language in bilingual education and they are convinced, along with others (UNESCO, 1955), that the... native language... is not only the best language for instructional purposes, but that its use in school can only enhance the child's self-image and esteem for his own culture."

There are also strong negative effects of educating first in the second language. Besides the mental blocks and discouragement commonly observed, a UNESCO study (1953:67) has pointed out that: "It is generally agreed by educationists and psychologists that a child should first learn to read and write in the language spoken in his home.... When this foundation has been laid, he can acquire a full command of his own and, if necessary, of other languages; without it, there is danger that he will never achieve a thorough command of any language."

Some of the women of the Cocama language group of Peru exemplify this problem. Forbidden to speak their own language by their parents, yet unable to understand the Spanish language, they have grown to adulthood speaking only a very simplified pidgin without the rich communicative potential of either Cocama or Spanish.

Summary

Thus, when compared to the alternatives, bilingual education in the jungle, in spite of its hazards, has, in the judgment of vernacular speakers and specialists who have worked with the program, produced superior results: we find self-aware, confident individuals, improved participation in the national life, reduced trauma, improved health and economic status, and doors opened to greater independence and freedom of choice. Taken as a whole, no other solution found thus far has proved to be as effective; the positive results outweigh the negative. If acculturation is approached from the vernacular speaker's point of view, if as many concessions as possible are made to the Indian culture rather than expecting all the change to be done by the minority group, and if long-range planning focuses on native leadership, we believe that programs can be developed which are even more effective and more beneficial for all concerned than any we have seen thus far.

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PART IV
THE PREPARATION OF MATERIALS

PART IV

The Preparation of Materials in Vernacular Languages

There are many books available on primer making.[1] Consequently this section is not a discussion of the "how tos" of book making. Rather, a number of articles have been selected which, growing out of the bilingual school program, illustrate some of the experiences which the field linguists have had while preparing material for vernacular languages.

The first article, written by Eugene E. Loos, discusses reading as the process of learning to identify a visual symbol with a psychological linguistic unit. He treats the need for a scientific alphabet based on the psychological units of the language and then the natural use of the vernacular in the materials prepared for literacy purposes. This presentation represents only one of several ways of looking at alphabets and relating them to reading. Loos has done linguistic field work, primer preparation, and translation in the Capanahua language. He has served as Coordinator of Technical Studies, overseeing the academic work, and is currently General Director of SIL in Peru.

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[1] See for example the following:

Faust, Norma, Furne Rich, and Mary Ruth Wise. 1975. *La preparación de meteriales de alfabetización en programas de educación bilingüe*. Lima, Perú: Centro de Investigación de Lingüística. Universidad Nacional Mayor de San Marcos.

Gudschinsky, Sarah. 1959. "Recent trends in primer construction". *Fundamental and Adult Education* 4:61–65.

1974 *Manual de alfabetización para pueblos prealfabetos*. México, D.F., Sep/Setentas.

Wendell, Margaret. 1975. "An experimental project for production of reading material in a pre-literate society". *Notes on Literacy*. 18:5. Huntington Beach, California: SIL.

Patricia M. Davis presents the challenges encountered while preparing a series of primers in the Machiguenga language and describes and illustrates the solutions attempted. Problems include long verbs and the fact that in idiomatic Machiguenga repetition is not frequent except to indicate continuative action.

Martha A. Jakway has contributed two chapters to this section. The first shows how the bilingual education program in the jungle has been adapted to the culture of the vernacular speakers. In the second she describes how native authors have been trained through writers' workshops. Details are given on specific workshops held in Peru and the result they have had in terms of increased native literature.

The final chapter in this section shows how the children themselves contributed to materials used in the schools. In the Amuesha schools, students who had learned to write in Amuesha were each given a notebook in which they were encouraged to do creative writing when they had time. This proved to be a successful way to teach composition, and the materials were then also used in the preparation of primers and library books. The author of this chapter, Martha Duff Tripp, has worked closely with the Amuesha bilingual school teachers, preparing materials in that language and supervising the village schools.

15

THE APPLICATION OF LINGUISTICS TO THE PREPARATION OF DIDACTIC MATERIALS[1]

Eugene E. Loos

Mastery of the written page is the essential ingredient for formal education. The progress of the student in successive levels of study presupposes a good foundation in reading and writing in the lower levels, and the ability to read and write well in the lower levels presupposes a mastery of the language used as the means of instruction.

To point out the relationship between language and literacy, the diagram on the following page presents a conceptualization of the components of interpersonal communication.

Moving from left to right on the chart, communication begins with *Thought*, which we will not try to define except to say that it can be viewed as an abstract structure manifested by syntactic units that have assigned phonological values (phonemes) which are also abstract. The phonological units are put in sequence orally by the production of acoustic vibrations, using the nerves and muscles of the articulatory system, sometimes with many variations in the phonetic production of the same abstract unit.

Hearing involves the opposite process: the acoustic vibrations are perceived by the ear and interpreted as a sequence of phonological units related to a syntactic structure that can be understood semantically. The process of oral communication depends on the production and perception of the acoustic signals that represent the abstract phonological units. We will call these units (phonemes) psychological symbols because they are assumed to exist in the subconscious.

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[1] Revised version of an article published in 1972 by the Peruvian Department of Education under the title, "La lingüística aplicada a la preparación de material didáctico," *Primer Seminario de Educación Bilingüe, algunos estudios y ponencias*.

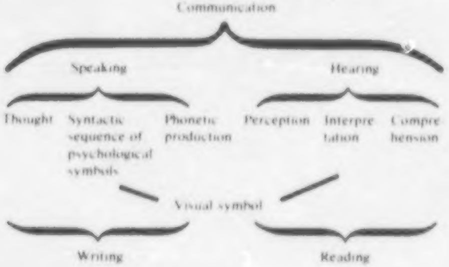

Figure 15.1 The components of communication, showing the relation between language and literacy.

Literacy is the acquisition of a new process: that of identifying a visual symbol with a psychological one. In writing, a psychological symbol is represented by a graphic symbol, i.e., a letter. In reading, the graphic symbol is identified with the corresponding psychological symbol, and when reading aloud, a phonetic value is assigned according to the variations indicated by the phonological system of the language.

The speaker of a language follows the speech patterns used by the other speakers of that language to produce phonetically the psychological symbols, with some small idiosyncratic variations. When compared in different languages, however, similar psychological symbols may differ in their phonetic variations. For example, in Spanish the nasal consonant *n* is pronounced as an alveolar before vowels but as a velar before velar consonants and word final (in some dialects). In Ticuna, on the other hand, the alveolar *n* is distinguished from the velar *n*. The alveolar and velar nasals represent different psychological symbols. In Capanahua, the nasal consonant *n* is a single psychological symbol and requires only one graphic symbol, although it is pronounced as an alveolar before vowels, as a velar before velars, as a bilabial before bilabials, as nasalization of the vowels that precede it when it occurs word final, and as nasalization of vowels and semiconsonants that follow it when it occurs immediately preceding a semiconsonant.

Beginning readers and writers seem to follow the process of mentally assigning the phonetic qualities corresponding to the symbol, even if they do not produce the sound orally. Considering that the phonetic articulation of any of the psychological symbols of the alphabet of a language can be different from a similar counterpart in another language, it is evident that we cannot demand an exact identity of graphic symbols (practical alphabets) between languages that are different. The adaptation of a practical alphabet presupposes analysis of the phonological system so that the most adequate graphic symbols can be chosen to represent the psychological symbol. In addition, to facilitate the students' transition from reading in their own language to reading in another language, it is convenient to choose the graphic symbols that offer the best possible correspondence of phonetic values between the two languages.

The preparation of educational materials also requires a knowledge of the syntactic system of the language so that the syntactic constructions used in the materials will be natural and will not draw the student's attention to strangeness in the expressions but rather toward the material to be learned. Literacy should have as its goal the enabling of the student to read not only with comprehension and fluency, but for enjoyment and acquisition of new information.

In our experience, we have observed that native teachers find life in an isolated community less difficult and more productive than nonnatives because they are members of the same language group. As a member of his culture, the native teacher has great advantages over a nonnative one. Although his education is often limited, he knows and understands his language and culture and the ecology. In the Amazon area, the native speakers available to serve as teachers have no formal teacher training, many having never even attended high school.

Even if a prospective teacher has had more scholastic background, this does not guarantee that he will be ingenious enough to utilize all the basic pedagogical principles in his teaching, especially if during the first year of work he must cope with various levels of students. It can be expected that a teacher with less education will have even greater difficulty.

For this reason it is important that the materials be prepared in such a way that a teacher with a minimum of sophistication automatically follows well-founded pedagogical techniques. Specifically, whoever prepares the materials should help the teacher by incorporating into them such basic pedagogical principles as:

(1) moving from the known to the unknown, using concepts that are interesting to the student
(2) adapting the instruction to the cultural limitations and peculiarities of the student
(3) providing sufficient repetition
(4) providing systematic comparisons
(5) providing systematic contrast
(6) promoting progress by controlled introduction of new concepts
(7) progressing from the first stage of learning (recognition) towards the second stage (application).

If these pedagogical principles have been incorporated into the design of the book, the teacher will be less burdened and will be free to devote more effort to taking better care of the individual needs of the students. For example, the principle of adapting the instruction to the cultural and linguistic peculiarities included the necessity of organizing the first Machiguenga reading books on the basis of the verb instead of the noun and of following the syntactic pattern of the language, which limits the repetition of nouns. In Machiguenga, nouns functioning as subject are not ordinarily repeated in subsequent sentences within the same paragraph (see chapter 16).

The number of new concepts and the rate of their presentation will determine the speed at which the student will progress through the pages of a given book.[2] Thus, a primer which included the 31 letters of the Amuesha alphabet in 20 pages would be more difficult than a primer which included 16 letters in 48 pages, and the progress of the students would be slower. Progress in using the art of associating subjectively the graphic symbols with the psychological symbols is important for the student's encouragement. To promote use of the new skill, the introduction of new concepts in a book is limited, and the number of exercises based on each concept is increased. This can be determined by a study of the letters of the alphabet. The letters which occur more frequently, and which therefore can be used to produce a greater variety of sentences, are chosen as the most productive ones. Using these productive letters, it is possible to teach only a part of the alphabet in the first book of a series, using many exercises and presenting from the beginning varied sentences that sound natural to the student. Thus, beginners have a sense of accomplishment because they are reading sentences that are meaningful and natural in their syntactic form: the sentences "speak" to them.

The first primer is begun by choosing from among the most productive letters those that exhibit the greatest contrast in size and shape: round, straight, tall, low. New words are presented utilizing a minimum of these contrasting letters and combining them in different ways, gradually introducing new combinations in natural sentences based on subjects that are familiar to the culture. Since the readers already master subjectively the rules of their language, they will pronounce the letters correctly once they learn to associate the graphic symbol with the psychological one.

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[2] Most of the principles described in this section were used in primers based on the psychophonemic method during the early years of the Peruvian experiment. These were often supplemented with books which included drills on syllables and frequently occurring affixes and combinations of affixes. Since about 1966 other methods have also been used.

When preparing primers it is also important to pay attention to mechanical orientation in the art of reading, such as:

(1) Reading readiness orientation
  (a) Reading from top to bottom of the page
  (b) Reading from left to right of the page
  (c) Recognition of pictures
  (d) Reading pages in sequence
(2) Reading orientation
  (a) Breaking down complete units (words) into their parts (syllables)
  (b) Using these parts (syllables) to form complete units (words)

Fluency in reading is developed by using texts that conform to the linguistic patterns of the language. It is important to use expressions that can be illustrated with clear pictures and to make attractive pages. The size of the letters should be controlled, as should the amount of content on each page.

Providing writing exercises in conjunction with the primers helps students to progress early or simultaneously towards the production stage (writing) until they can write their own cultural accounts (legends which so far have been passed on orally) and new productions, such as autobiographies.

A bilingual education program normally requires a basic linguistic analysis on which to base the preparation of materials. The analysis should include:

(1) phonological analysis and formulation of a practical alphabet.
(2) grammatical analysis, to distinguish natural from unnatural patterns
(3) a survey to determine dialectal variations in cases of hitherto unstudied languages.

The materials prepared should include:

(1) a basic series of short reading primers (four to eight, depending on the complexity of the language) (Mastering a

series of primers has a better psychological effect on the student than completing one thick volume.)

(2) intermediate primers

(3) advanced reading texts.

Gudschinsky[3] and her colleagues proposed that the syntactic form of expression and the relationship of the reading material to the culture and to the personal experience of the reader or writer, can be used as parameters to determine expected degrees of difficulty of the materials.

TABLE 15.2. RELATIONSHIP OF CULTURE, PERSONAL EXPERIENCE, AND SYNTACTIC FORM TO DEGREE OF READING DIFFICULTY OF A PIECE OF LITERATURE

Degree of Difficulty	**Relationship to Culture**	**Relationship to Experience**	**Syntactic Form**
1	Internal	Direct and Personal	Free
2	Internal	Indirect	Free
3	External (Foreign)	Indirect	Free
4	External	Indirect	Free
5	External	Indirect	Restricted literal translations

The easiest materials are those dealing with subject matter which is already known by the reader, is familiar to the culture, and is expressed naturally. The most difficult are those dealing with subject matter which is foreign to the culture and to the personal experience of the learner and which use a restricted syntactic form,[4] such as materials translated from another language in which the original text has been followed closely.

The use of materials in a bilingual education program presupposes trained personnel: (1) teachers who have received orientation in the philosophy, method, and materials used; (2) trained supervisors; and (3) communities that are ready to receive them (officials, parents, and the public in general). The materials cannot achieve the purpose they are designed for if they are not used according to their design.

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[3] Sarah C. Gudschinsky, *A Manual of Literacy for Preliterate Peoples* (Ukarumpa, Papua New Guinea: Summer Institute of Linguistics, 1973).

[4] Materials of this type are not recommended for use in a primary school program since they are unnatural stylistically and are therefore very difficult to comprehend.

16

THE CHALLENGES OF PRIMER MAKING[1]

Patricia M. Davis

The purpose of this chapter is to present some of the problems that complicated the preparation of a series of primers in the Machiguenga language,[2] and to describe the solutions attempted. It is necessary for the reader to realize that the Machiguenga language and world view are totally different from that of Indo-European cultures. Also, since most Machiguenga live in extremely isolated areas, many of them are not familiar with concepts which the mechanized world considers basic.

Reading is one of those concepts. The task of the educator, therefore, is to make comprehensible a concept which is totally foreign to the Machiguenga, using the natural forms of the mother tongue as the key. Some of the problems treated here may be limited to the Machiguenga language and to some varieties of Campa; others may be encountered more frequently around the world. However, the search for solutions serves as an example of the importance of tailoring literacy materials to the linguistic structure of the target language in order to facilitate learning.

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[1] An earlier version of this chapter was published under the title "Confeccionando cartillas" in *Comunidades y Culturas Peruanas* 1, No. 1, December 1973. (Pucallpa, Perú: Instituto Lingüístico de Verano.)

[2] Machiguenga is one of the closely related Campan languages and dialects within the Arawakan family. It is spoken by an estimated 7,000 people.

After a lengthy period of experimentation, we were convinced that methods used successfully to teach reading to some language groups produced unsatisfactory, or at best mediocre, results among the Machiguenga. It appeared that this occurred because, in one way or another, those methods were oriented to languages in which nouns were predominant, or at least could be repeated frequently, and did not make adequate provision for the predominance of verbs in Machiguenga discourse. It would be necessary, therefore, to find a method which would concentrate on verbs.

The problem was complicated by the fact that Machiguenga verbs are *very* long (see figure 16.1). More complex still, the distribution of syllables is almost infinitely varied. It was extremely difficult to find segments larger than the syllable which were similar enough to be usable for drill purposes. Furthermore, in idiomatic Machiguenga, exact repetition is infrequent except for indicating continuation of an action.

Given these restrictions, how could we communicate the sophisticated concepts inherent in reading? How could we prepare readers to handle the complexity of natural text without unnatural repetition? How could we stimulate interest among a people who found "paper too hard"? To accomplish all of this, we finally devised a series of primers which incorporates various methods and divides the teaching of basic reading concepts into two phases. The first phase is prereading: students learn to recognize pictures[3] and, simultaneously, use a workbook which, by means of pictures, teaches recognition of similarities and differences (figure 16.2). This is followed by a primer which teaches 23 sight words, most of them nouns which are highly contrastive in shape. In the simplest way possible, the concept is established that the objects of our world can be represented with written symbols (figure 16.3).

The teacher presents new words using the following steps: (1) the class converses about the pictured object, (2) the teacher shows how the name of the object is written, (3) students find other occurrences of the word on the same page, (4) find other occurrences of the word throughout the book, and (5) read the entire page for themselves.

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[3] It is important that the pictures represent objects which are both familiar to the people and interesting to them.

It is important to mention here that, in our experience, if primers are to be taught by tribespeople with a limited amount of educational preparation, it is best to restrict the methods within a primer series to the few which can consistently be used page by page. Unsophisticated teachers have performed very well when they were able to recognize by the structure of the page itself which of two or three methods should be employed (one for new words, another for new syllables, and another for review). However, they may easily become confused if they are required to use any extensive variety of methods and/or visual aids.

The second phase of the reading program initiated the teaching of syllables. My colleague, Betty Snell, who speaks the Machiguenga language fluently, was the one who suggested—after a long search—the advantages of a folklore story with its familiar cultural concepts and natural vocabulary. One relatively simple story seemed appropriate, and although it was rather long, it contained four natural divisions. It was divided into four primers, using the vocabulary and concepts taught in each to accelerate the learning processes in the following book.

The story had to be drastically abbreviated in the first primer. However, it was published in full in the introduction, with instructions to the teacher to read it to his students, thereby familiarizing them with the content of the material they were about to study. High interest and motivation were aroused as students looked forward to learning to read the story for themselves.

The first page begins: "There lived (was) a man" (figure 16.4). Two contrasting words are taught in the setting of a natural sentence, and each word is practiced four more times on the same page.

The second page repeats the sentence and teaches the syllables *i* and *ma* (figure 16.5). At first, the Machiguenga found the concept of syllables extremely difficult, since syllables often have no inherent meaning and are not ordinarily pronounced in isolation. It takes at least two days to teach page 2 thoroughly, even with the use of accompanying drills.

Throughout the primer series, the pattern of key sentence, key word, key syllable is repeated. New items are limited to one, or at the most two, per page, with intensive drill on the page of initial introduction and on the following several pages. Large check charts, compiled as each page was constructed, tabulated the items introduced, enabling us to keep track of the frequency of repetitions and helping to ensure sufficient practice for each item.

Capital letters were first introduced on page 5 (figure 16.6). Subsequently, complete sentences employed capital letters and periods. However, each capital letter was considered to be a new item and was given corresponding drill. Each new sentence added information to the story. These sentences were drilled (with different word order wherever grammatically permissible) in order to avoid the problem of students memorizing the material.

By the time they had reached page 10 (figure 16.7), students had learned four syllables and were ready to begin combining them into new words. (It has proved important for pupils to realize that each syllable is useful for building many words and that with a knowledge of syllables one can attack words one has never before seen.) The simple process on page 10 helps the student understand how to sound out a new word. Thereafter, this type of practice is included after the introduction of each new syllable.

On page 25 (figure 16.8), the concept of syllable "families" is introduced. It would be very difficult to memorize all the syllables of a language individually, but once students see the similarities between groups (*a*, *ka*, *na*, *ma* etc.), it is easy for them to learn the whole group and generalize to other similar sequences.

Pages 44 and 45 (figures 16.9 and 16.10) introduce the longest word of the primer. We have found that it is not difficult for students to learn one or two long words (either by sight or by syllables), if they are known words and contribute to the sense of the story.

Finally, on page 57 (figure 16.11) the children read an abbreviation of the story and finish the first phase of the man's adventures, having learned 34 words and 22 syllables. The following is the simplified plot of the story:

> There was a man who was walking through the jungle. He heard an armadillo which had climbed up a tree to chop down clusters of fruit, leaving his shell at the foot of the tree. Since this man was a trickster, he thought that it would be funny to smear the shell with a slippery substance. When the armadillo descended and tried to "dress himself," the shell slipped off *soáa*. But the man took pity on him, cleaned off the shell, and they became friends.

Primer 2 continues with the second stage of the man's journey. As in Book 1, the teacher first reads the story to the students, and then the story is built slowly for the students to read, using the same methodology. This second stage of the story required the presentation of a heavy load of new syllables. In order to give adequate drill, it was necessary to add small paragraphs—drilling new syllables and the reading of sentences—to supplement the main legend. Primer 2 also introduced hyphenation of words at the end of lines (figure 16.12), the reading of two syllables as a unit (figure 16.13), and the continuation of a story from one page to another (figures 16.14 and 16.15). It gives special attention to closed syllables (figure 16.16), which seem to be especially difficult for Machiguenga students.

By the end of the book, the students know 30 more syllables and can read a two-page abbreviation of the story (figures 16.17 and 16.18), consisting of a conversation between the man and a toucan whom he has met during his journey.

The third primer continues the story, this time without the need for the teacher to read an introduction for the students (figure 16.19). Two-syllable particles are taught as one unit (figure 16.20)—a device begun in Book 2 to help the student to group syllables and to span a long word in two to four eye motions, rather than having to grapple with each syllable individually. Instead of each word being taught and drilled separately, words "built" from known syllables are pointed out by underlining, and students are challenged to read them without help since they know all the components (figure 16.21). The teaching of syllables is now extended to members of the syllable "family" not listed in the story (teaching by extension of known patterns: figure 16.22). The entire alphabet is taught (figures 16.23 and 16.24), and reading of capital letters is practiced (figure 16.25).

By the end of Primer 3 the students know 25 new syllables and six new particles larger than the syllable, and can read a simplified version of the story. The subject is the man's encounter with a magical anteater who comes apart at night.

Primer 4 continues the story, giving special attention to the use of syllables in new words (figure 16.26). In many languages it is not possible to teach all the syllables, especially if there are a great many syllables closed with consonants and consonant combinations. In these cases one must teach each *type* of syllable thoroughly (for example, *rom*, *tom*, and *pom*), and experience has shown that the students will be able to make the extension to other variations of that type (such as *mom*, *com*, *som*).

Additional exercises in Book 4 show the relationship of long words to their simpler forms (figure 16.27). There is drill on reading capital letters (figure 16.28) and on answering questions about the story content (figure 16.29)—a check on comprehension—and the remaining syllables of the language are introduced and practiced in "family groups." At the end of the book, students are able to read the complete version of the story, which leaves the man living contentedly with his sister in the home of a jaguar. At this point, students are able to read uncontrolled vocabulary.

It should be mentioned that this program does not depend exclusively on the use of the primer. Flash cards which drill both words and syllables are used for each new item introduced in all primers except the fourth, which has only syllable flash cards. Words and syllables are drilled on the blackboard. The writing program, carefully geared to correspond day by day to the reading program, reinforces the reading with practice on each new item as it is introduced.

Testing has shown that with this method students of average intelligence can complete the program in three school years, often less, and are able to read their language with comprehension—a considerable accomplishment in view of the difficulty of the long words in Machiguenga literature (figure 16.30—a page of text). However, to maintain the skill permanently and to achieve speed and fluency, considerably more practice is needed with various types of stories.

LENGTH OF MACHIGUENGA VERBS:

Average: 12 - 18 letters.

Yovirinitanakero.

"He made her sit down."

Common: 25 - 35 letters.

Impashiventaigavetanakempatyo.

"They will be ashamed, but they won't do anything (about it)!"

The longest found thus far:

51 letters and digraphs.

Irapusatinkaatsempokitasanoigavetapaakemparorokarityo.

"Probably they will turn right over into the water when they arrive, but they won't stay that way."

Figure 16.1. Example of verb length in Machiguenga.

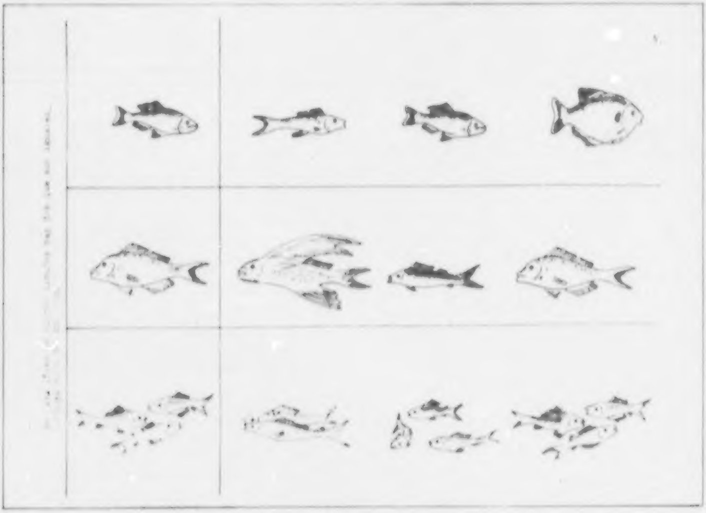
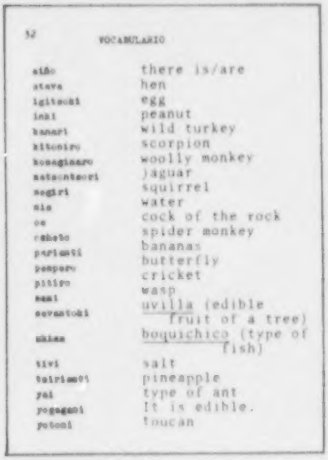


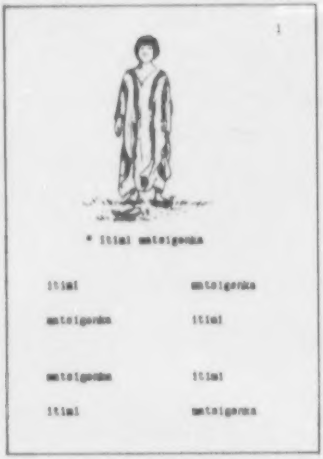
Figure 16.2. Sample page from a preprimer.



32 VOCABULARIO

aiño	there is/are
atava	hen
igitsoki	egg
inki	peanut
kanari	wild turkey
kitoniro	scorpion
komaginaro	woolly monkey
matsontsori	jaguar
megiri	squirrel
nia	water
oe	cock of the rock
osheto	spider monkey
parianti	bananas
pempero	butterfly
pitiro	cricket
sani	wasp
sovantoki	uvilla (edible fruit of a tree)
shima	boquichico (type of fish)
tivi	salt
tsirianti	pineapple
yai	type of ant
yogagani	It is edible.
yotoni	toucan

Figure 16.3. Sample of Machiguenga vocabulary.

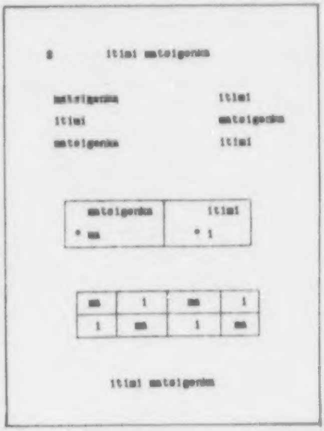


1

* itimi matsigenka

itimi	matsigenka
matsigenka	itimi
matsigenka	itimi
itimi	matsigenka

Figure 16.4.



8 itimi matsigenka

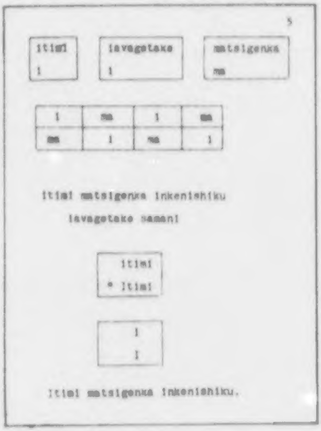
matsigenka	itimi
itimi	matsigenka
matsigenka	itimi

matsigenka	itimi
* ma	* i

ma	i	ma	i
i	ma	i	ma

itimi matsigenka

Figure 16.5.



5

itimi	iavagetake	matsigenka
i	i	ma

i	ma	i	ma
ma	i	ma	i

itimi matsigenka inkenishiku
iavagetake samani

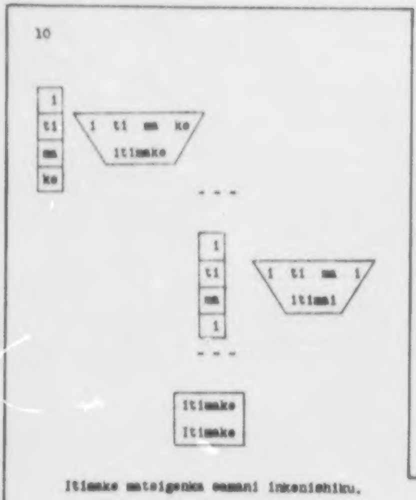
itimi
* Itimi

i
I

Itimi matsigenka inkenishiku.

Figure 16.6.

Figure 16.4–16.30. Sample pages from Machiguenga readers.



10

i
ti
ma
ke

i ti ma ke
itimake

- - -

i
ti
ma
i

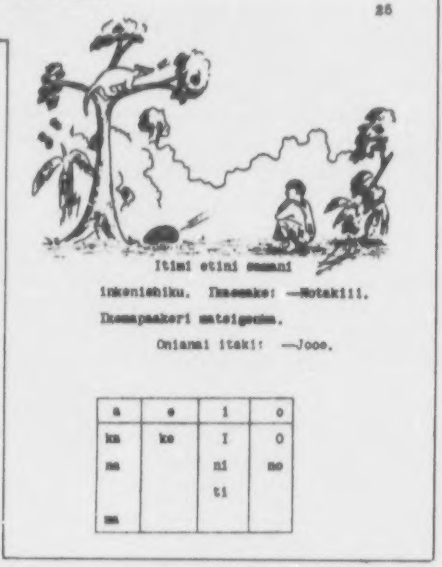
i ti ma i
itimai

- - -

Itimake
Itimake

Itimake matsigenka osamani inkenishiku.

Figure 16.7.



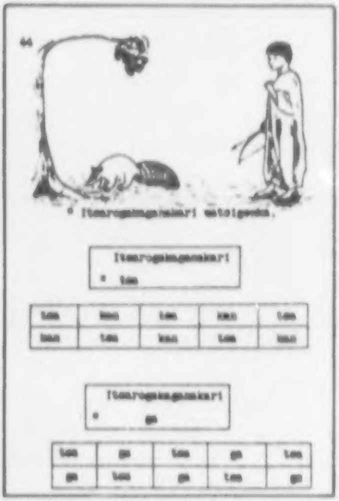
25

Itimi etini osamani
inkenishiku. Ikaemake: —Notakiii.
Ikemapaakeri matsigenka.
Onianai itaki: —Jooo.

a	e	i	o
ka	ke	I	O
na		ni	no
		ti	
ma			

Figure 16.8.

281



44

• Itsarogakaganakari matsigenka.

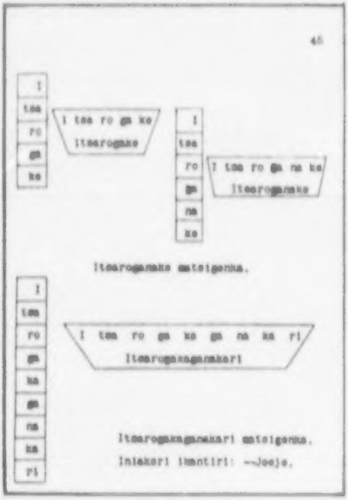
Itsarogakaganakari
• tsa

tsa	ka	tsa	ka	tsa
ka	tsa	ka	tsa	ka

Itsarogakaganakari
• ga

tsa	ga	tsa	ga	tsa
ga	tsa	ga	tsa	ga

Figure 16.9.



45

I tsa ro ga ke
Itsarogake

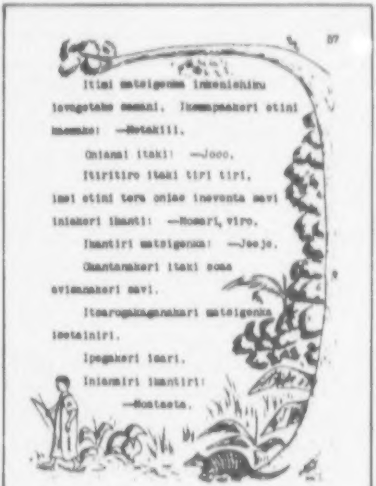
I tsa ro ga na ke
Itsaroganake

Itsaroganake matsigenka.

I tsa ro ga ka ga na ka ri
Itsarogakaganakari

Itsarogakaganakari matsigenka.
Iniakeri imantiri: —Jeeje.

Figure 16.10.



87

Itimi matsigenka inkenishiku
iovegotake [illegible]. Ikemapaakeri otini
[illegible]: —Notakiii.
Onianai itaki: —Jooo.
Itiritiro itaki tiri tiri,
imoi otini tera oniae inevonta mavi
Iniakeri imanti: —Nomari, viro.
Imantiri matsigenka: —Jeeje.
Okantanakeri itaki [illegible]
ovianaakeri mavi.
Itsarogakaganakari matsigenka
isotainiri.
Ipegakeri isari.
Iniamiri imantiri:
—Nontsata.

Figure 16.11.

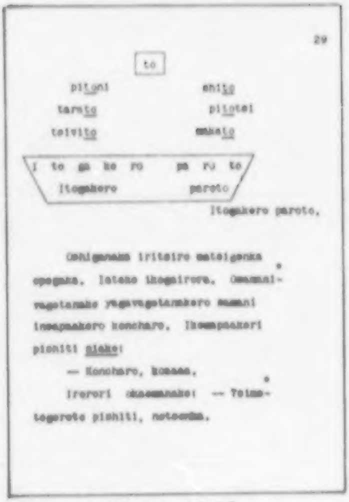


Figure 16.12.

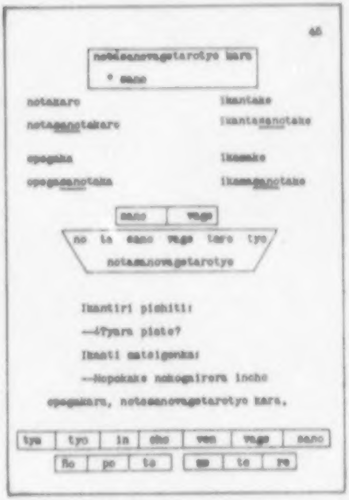


Figure 16.13.

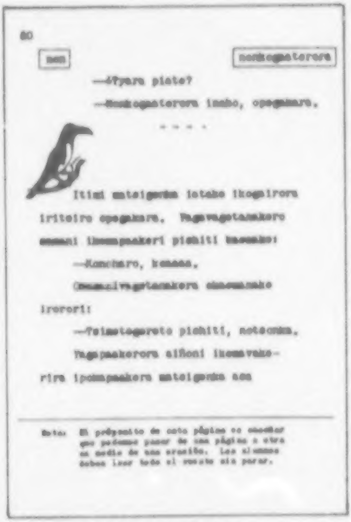


Figure 16.14.

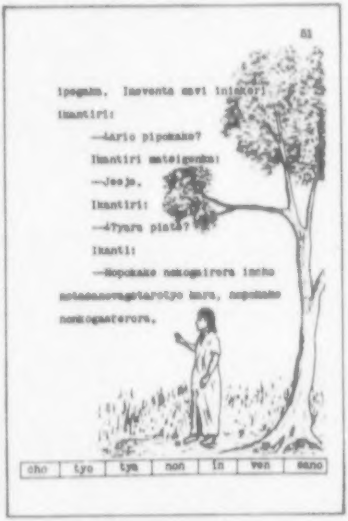


Figure 16.15.

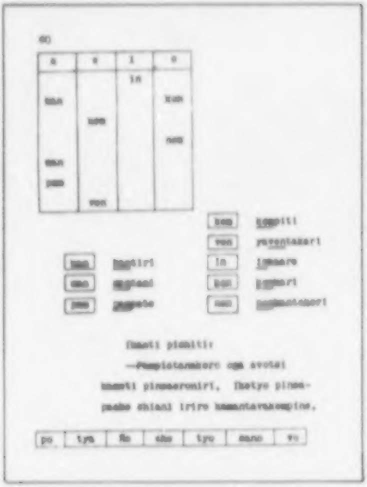


Figure 16.16.

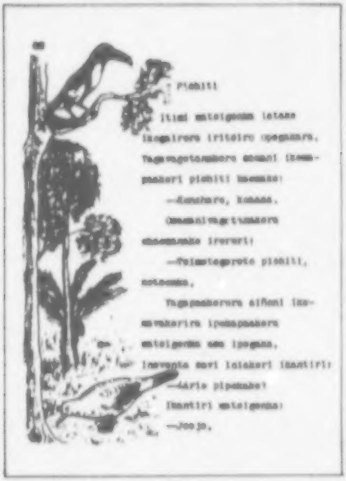


Figure 16.17.

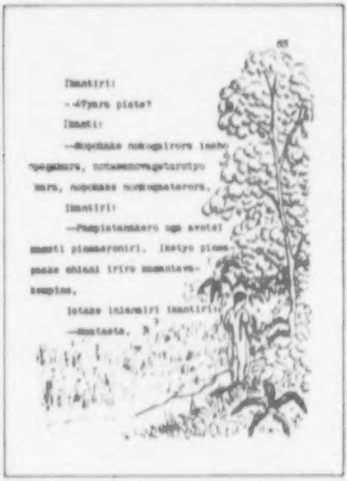
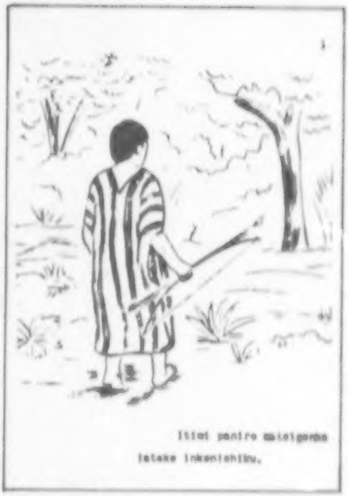


Figure 16.18.



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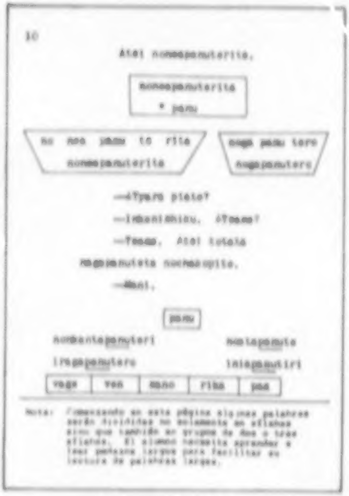

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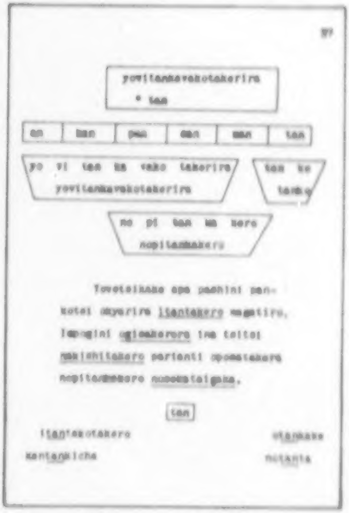

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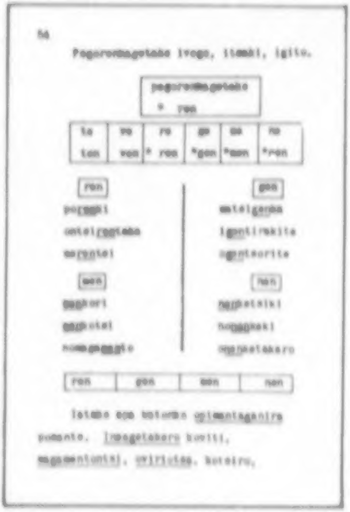

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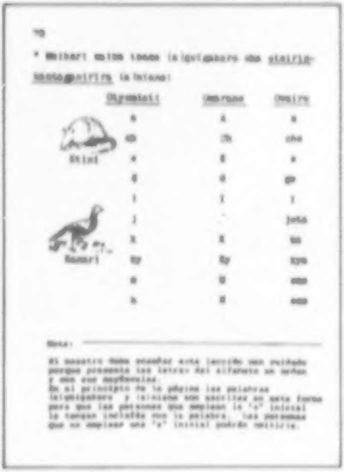

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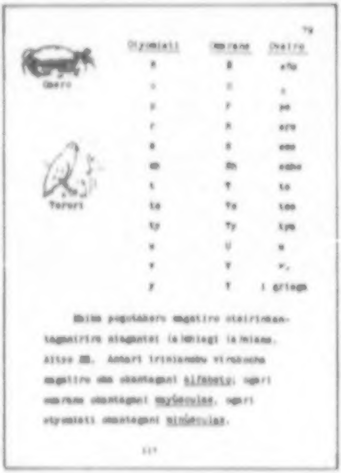

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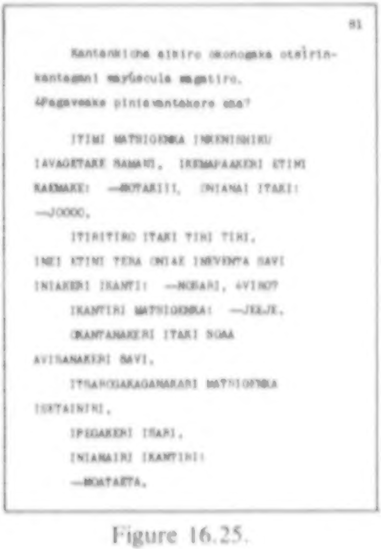

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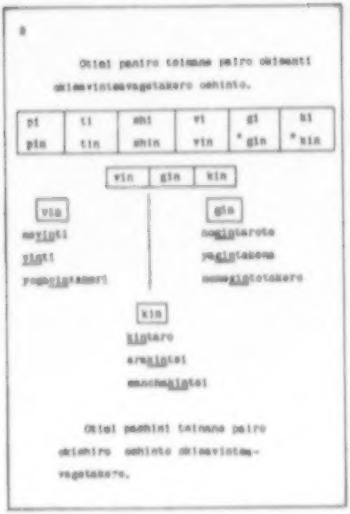

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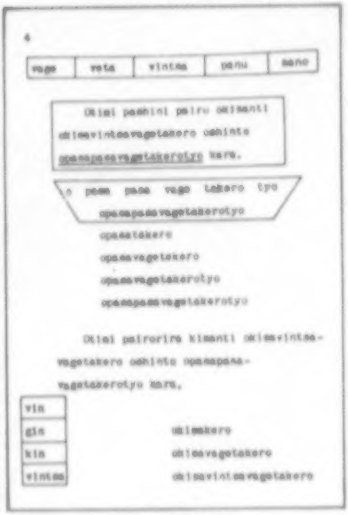

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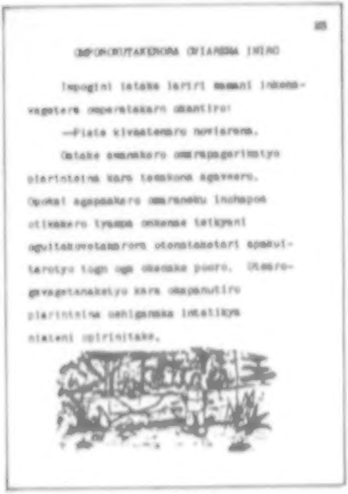

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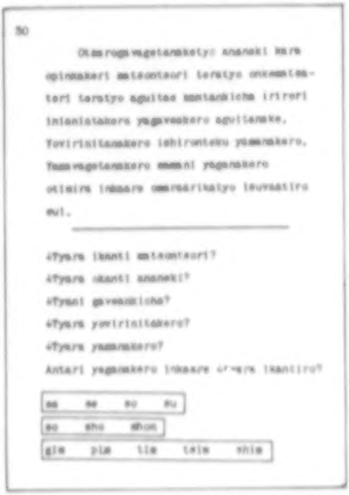
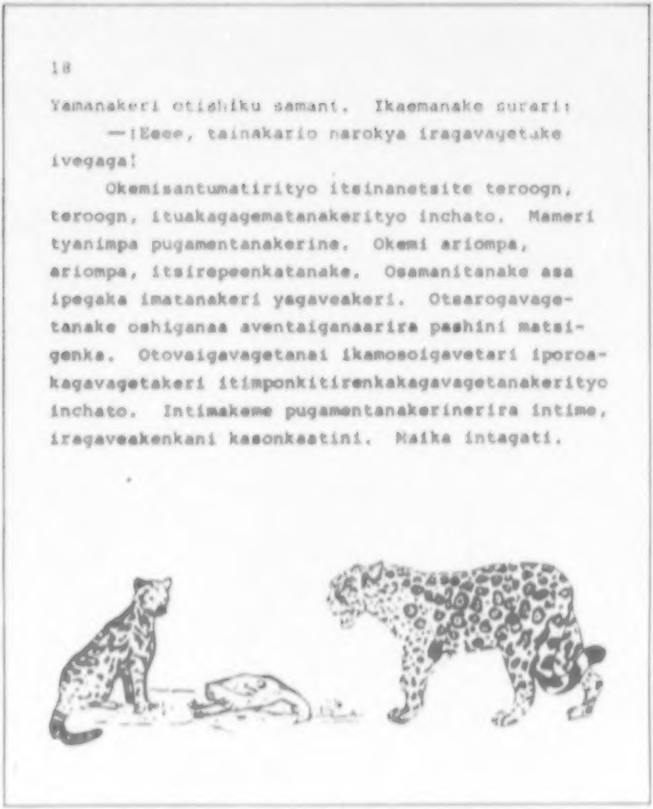


Figure 16.29.



18

Yamanakeri otishiku samani. Ikaemanake surari:

—¡Eeee, tainakario narokya iragavagetake ivegaga!

Okemisantumatirityo itsinanetsite teroogn, teroogn, ituakagagematanakerityo inchato. Mameri tyanimpa pugamentanakerine. Okemi ariompa, ariompa, itsirepeenkatanake. Osamanitanake asa ipegaka imatanakeri yagaveakeri. Otsarogavagetanake oshiganaa aventaiganaarira pashini matsigenka. Otovaigavagetanai ikamosoigavetari iporoakagavagetakeri itimponkitirenkakagavagetanakerityo inchato. Intimakeme pugamentanakerinerira intime, iragaveakenkani kasonkaatini. Maika intagati.

Figure 16.30.

(Lemke, 1968)

Aguaruna school children learn about what causes disease as health promoter Julio Paukai points out a colony in a bacterial culture (see chapter 22).

(Congdon, 1973)

Oral polio vaccine is administered to a Ticuna infant by the health promoter, Lucas Cándido (see chapter 22).

17

CULTURALLY ADAPTED EDUCATION[1]

Martha A. Jakway

Why should a one-room schoolhouse in the jungle of Peru (with thatched roof, walls of wild cane, dirt floor, and homemade desks) be of interest to educators all over the world? Because this schoolroom is the practical demonstration of an educational adventure, on a relatively large scale, which has been tried in few other countries.

In its official statement concerning bilingual education policy, Peru indicates that a minority group does not have to reject its own life-style in order to fit into the national culture. Peru's policy of cultural pluralism allows for different traditions and languages within the national framework.[2] Peru's schools reflect such pluralism. Rather than a monolithic system which requires the same educational aims and procedures for all pupils, the educational system allows diversity and flexibility. Educational goals and practices are tailored to the needs of local communities. The jungle bilingual schools are an expression of this policy, because the educational program is presently adapted to many indigenous cultures.

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[1] An earlier version of this paper appeared in *Educación*, 13:7–12 (Lima: Ministerio de Educación, 1975).

[2] The following appears in *Política Nacional de Educación Bilingüe* (Lima: Ministerio de Educación, 1972), p. 10. "The objectives of bilingual education are:... 2. To contribute to the formation of the new man in a just society through the reinterpretation of the cultural and linguistic plurality of the nation, with the intent of creating a national culture. 3. To achieve the use of Spanish as a common tongue of the Peruvian population, at the same time affirming respect for the linguistic diversity and the value of the tribal languages."

What are some of the ways the bilingual school takes the local situation into account?

First of all, the schoolroom itself is adapted to the culture and the locale. Leaves and wild cane or wood are available at no cost in the immediate area, and the people know how to use these building materials and how to maintain and repair the building. Attempts to build with cement and aluminum, however, have usually not been successful, as outside help is needed for the use of these materials and both the initial purchase and upkeep are very expensive. Moreover, wild cane or wood walls and leaf roofs keep out the intense heat much better than cement and aluminum do.

Another local factor which should be taken into consideration is the daily schedule of the home. Children are needed to help their mothers by working in the garden and by babysitting. Some children require one or two hours to walk to and from school. Most jungle families do not eat at fixed times, but eat when mother gets home from the garden and cooks the manioc, perhaps at 2:00 or 3:00 in the afternoon. The class schedule in some schools is therefore continuous from 7:00 to 1:00 rather than being interrupted by a lunch hour and lasting until late in the afternoon.

A more important feature is the use of the indigenous language for instruction. Rather than trying to learn reading, writing, and arithmetic through the medium of an unfamiliar language, thus leaving many gaps in the skills and the understanding of the student, children learn the skills in logical progression in their own language. Oral Spanish is learned simultaneously and, by the time the children have mastered some Spanish, they do not need to spend very much time on mechanical skills. And since they only need to learn the few letters which differ from their own language, they can spend most of their time concentrating on understanding the ideas presented in the new language.

Moreover, the children are being taught by a teacher from their own culture. What is the value of this? Each person tends to believe that his own language and culture are the best. If a teacher of another culture teaches the native children, the teacher often subconsciously transmits the thought that his own language and culture are superior to those of the students. The students then grow up with the idea that their language has no value, that it cannot be written, and that they have to forget it in order to gain prestige as a national citizen. Even if a person from another culture speaks the vernacular language rather well, his thought patterns may be different, and he may have a different system of values.

A classic example of the interference of such cultural differences is the case of the Navajo Indians who were shown a filmstrip prepared by someone from another culture. The film taught a process by pictures, with no narration. When asked what they thought of the filmstrip, the Navajos said they couldn't understand it because it wasn't in Navajo. Obviously, knowledge of a language is not the only element necessary for communication. There is a certain manner of presentation, of approaching a subject, which differs from one culture to the next.

Children taught by a person from their own culture are free to concentrate on the skill being taught, rather than undergoing the emotional strain of coming into conflict with someone from another culture who does not understand them or their way of thinking. A teacher with the same background as his students generally respects his own culture and language, and can impart this healthy respect to the students.

Another of the principal ways in which the bilingual schools take the local culture into consideration is in the curriculum—the materials and teaching methods. It is worthwhile to look at this aspect in detail.

The reading material for jungle children has been prepared with their culture in mind. The average indigenous child has no books, magazines, or newspapers at home: initial contact with the printed page occurs in school. *Mirar, Pensar y Hacer* (Look, Think and Do) is a book of reading readiness prepared specifically for jungle children, teaching them left-to-right progression, to distinguish similarities and differences, and other prereading skills. All the pictures used in this book are jungle oriented and thus do not cause confusion by presenting an abundance of objects the children have never seen. (See figures 17.1, 17.2, and 17.3, which are designed to teach determining likenesses, differences, and left-to-right progression.)

The basic reading series in most vernacular languages teaches one syllable or a set of syllables in each lesson. The key word used to introduce these syllables and consequently the pictures used to illustrate them are jungle oriented (see figure 17.4).

After mastering the basic reading series, the students read simple storybooks. The initial books are stories about jungle birds, animals, houses, legends, means of transportation—subjects which are all familiar to the students. The more advanced books broaden their horizons by introducing the city, animals of other countries, hygiene, and many other subjects. Whenever circumstances permit, these books are written by a native speaker, so that children are first introduced to new subjects

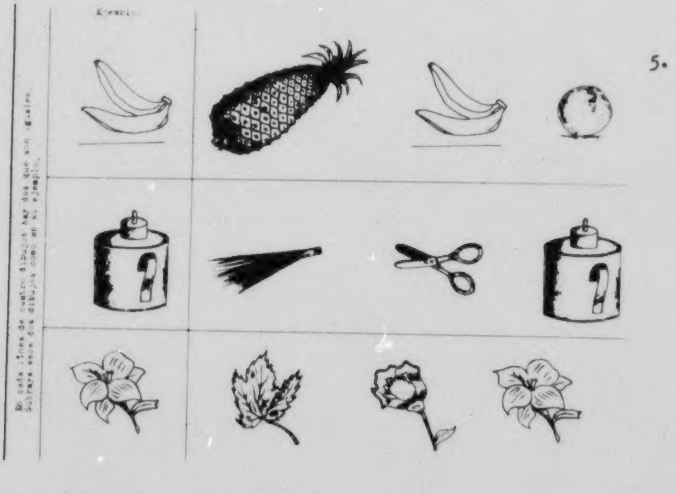

En cada línea de cuatro dibujos hay dos que son iguales.
Subraye esos dos dibujos como en el ejemplo.
Ejemplo:
5.

Figure 17.1.–17.3. Pages from preprimer workbook, *Look, Think and Do.*

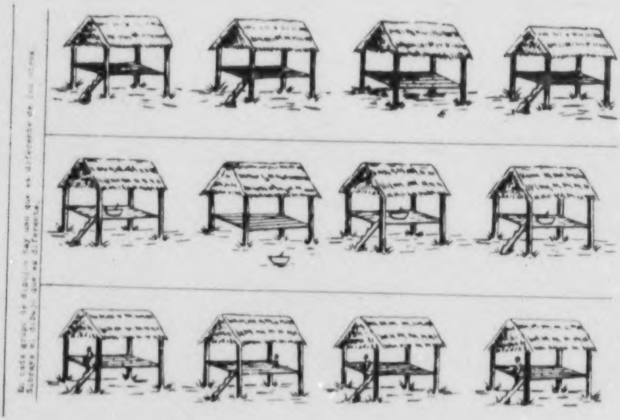

En cada grupo de dibujos hay uno que es diferente de los otros.
Subraye el dibujo que es diferente.

Figure 17.2.

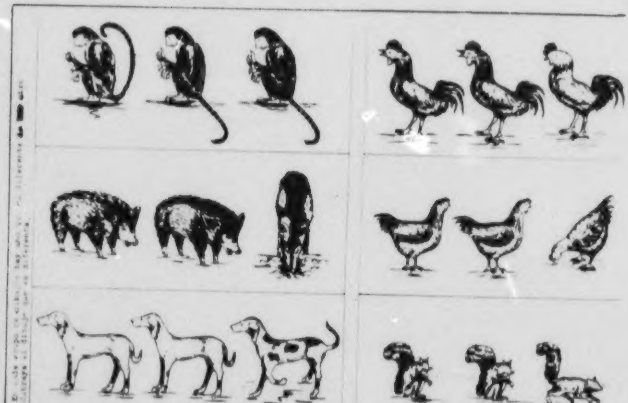
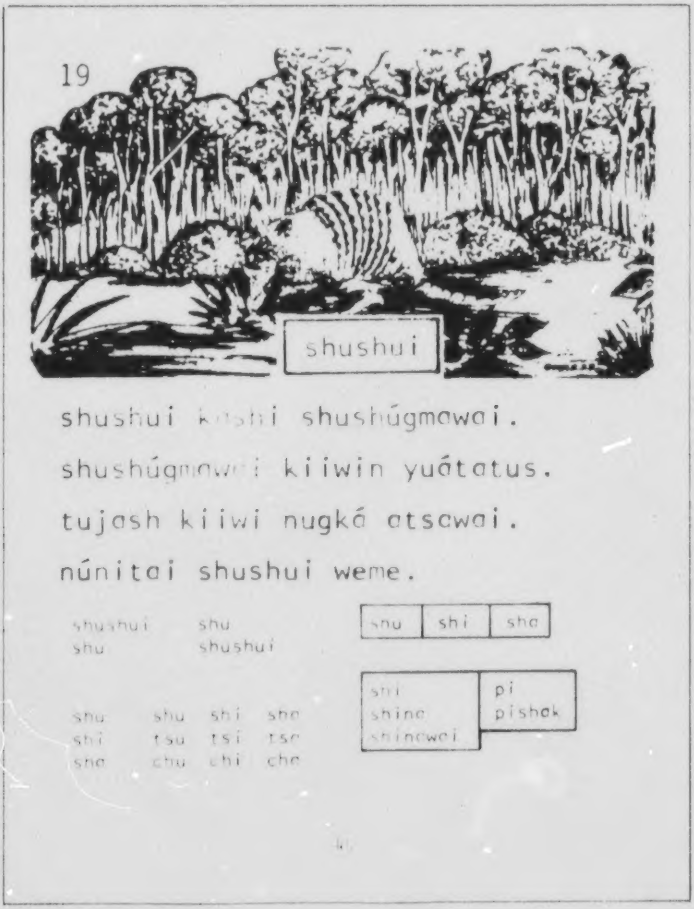

6.
En cada grupo de dibujos hay uno que es diferente de los otros.
Subraye el dibujo que es diferente.

Figure 17.3.



19

shushui

shushui kashi shushúgmawai.

shushúgmawai kiiwin yuátatus.

tujash kiiwi nugká atsawai.

núnitai shushui weme.

shushui shu
shu shushui

shu	shi	sha

shi shina shinawai	pi pishak

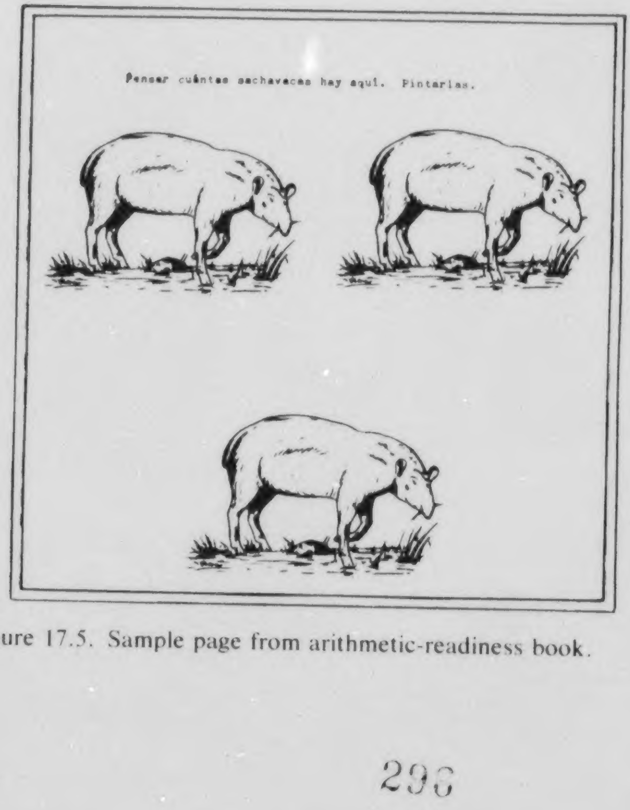
shu shu shi sha
shi tsu tsi tsa
sha chu chi cha

46

Figure 17.4. Primer page with Keyword by itself, in text, and analyzed.

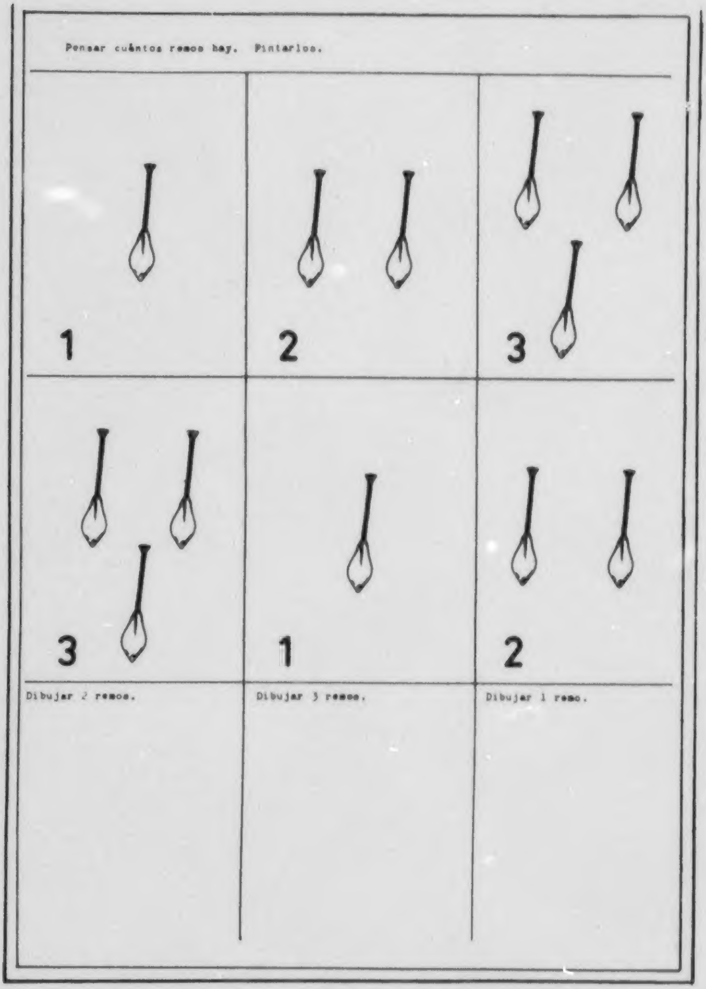
through the eyes of someone from their own culture. For example, an Aguaruna who made a trip to Lima wrote a book about the trip, thus introducing his fellow tribesmen to Lima from the Aguaruna point of view. For some time the school children and teachers in many tribes have been writing these kinds of books for their fellow tribesmen to read. Now literate vernacular speakers, with a flair for writing, are attending workshops to learn the rudiments of writing stories and producing their own books, in order to develop a more extensive body of culturally adapted literature.

How has the presentation of mathematical concepts been adapted to the culture? Jungle children have to gain familiarity with a counting system which is new to them. Many languages



Pensar cuántas sachavacas hay aquí. Pintarlas.

Figure 17.5. Sample page from arithmetic-readiness book.



Pensar cuántos remos hay. Pintarlos.

Dibujar 2 remos.

Dibujar 3 remos.

Dibujar 1 remo.

Figure 17.6. Sample page from arithmetic-readiness workbook.

have number systems only up to 3, 4, or 5, which the people count on fingers or toes; higher numbers are simply designated as "much" or "many". Learning the value of each number and number combination for addition and subtraction up to 20 is no small accomplishment for the children.

Vamos a Contar (Let's Count), an arithmetic-readiness book, has many pages of activities for building the number concepts from one to ten, ordinal and cardinal, and teaching children to write them. This book uses pictures familiar to the jungle child, since unidentifiable pictures, abstract numbers, and geometrical shapes do not have much meaning to the child who has no background in this new number system. The emphasis is on varied experiences with concrete material and much repetition of number facts in order to reinforce these new concepts.

Later arithmetic books teach addition, subtraction, multiplication, division, and other processes. For each new process taught, the teacher first presents the material in a concrete situation, then with a drawing, and finally with the abstract symbol. This method of presentation, which has proved to be most effective, is used until the children have completely mastered the process. If one were to go on to abstract symbols too quickly, the children would have no comprehension of what they were doing. For instance, if the teacher presents 1 + 1 concretely, graphically, and abstractly, and then teaches 2 + 2 without a concrete example, the children will not really understand what 2 + 2 means (see figure 17.7).

Word problems throughout the arithmetic books are jungle oriented. For example:

> Luisa has 3 chickens. In a week each chicken laid 4 eggs. How many eggs has Luisa collected in a week?
>
> or
>
> Six people went upriver in 2 canoes. There were an equal number of people in each canoe. How many people traveled in each canoe?

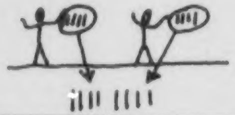
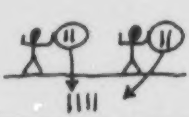
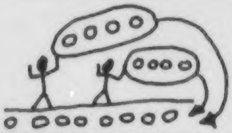
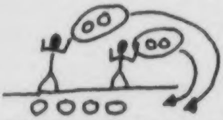
Illustration	Numbers
	4 X (each group) 2 (Groups) 8
	2 X (each group) 2 (Groups) 4
	4 X 2 8
	2 X 2 4

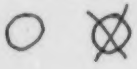
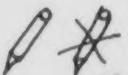
Illustration	Numbers
	2 − 1 1
 See Math 2 P.21	2 − 1 1

Figure 17.7 Arithmetical concepts are presented by illustration and by symbol.

The teaching of Spanish as a second language is also adapted to the needs of the indigenous school. The initial audio-oral course includes the learning of children's songs in Spanish as well as simple commands that the children will need, such as, "Come here. Sit down. Open your books. Erase the board." The main part of the lessons contain useful conversations which the children also need as they communicate with the Spanish speakers coming into their area. The course consists of the presentation of a series of tape-recorded stimulus-response exercises. The children "overlearn" this conversation to the degree that they respond automatically to the given stimulus question. They may learn, for example, to respond to a visitor in the following manner:

VISITANTE: *¿Hablas castellano?*	VISITOR: *Do you speak Spanish?*
ALUMNO: *Sí, un poco. ¿En qué puedo servirle?*	STUDENT: *Yes, a little. May I help you?*
VISITANTE: *Llama a tu papá. Deseo hablar con él.*	VISITOR: *Call your father. I'd like to talk with him.*
ALUMNO: *Mi papá se fue al monte ayer para mitayar.*	STUDENT: *My father went on a hunting trip yesterday.*
VISITANTE: *¿Dónde está tu mamá?*	VISITOR: *Where is your mother?*
ALUMNO: *Se fue a la chacra.*	STUDENT: *She went to the garden.*
VISITANTE: *¿Sabes cuándo volverá?*	VISITOR: *Do you know when she will be back?*
ALUMNO: *No sé.*	STUDENT: *No, I don't know.*

No attempt is made in the first course to give a systematic presentation of grammar. The teaching of grammar is begun in the second course after the children can carry on a number of simple, basic conversations.

A beginning Spanish reader has been published which provides for transition from reading in the native language to reading in Spanish. It teaches the syllables which occur in Spanish but seldom occur in the native language. The book also emphasizes activities for comprehension and language learning. An episode of an exciting story, written from the jungle point of view, unfolds in each lesson and is repeated in a variety of ways, while questions about the current episode and previous ones appear. After finishing this book, the children begin to use the reading books used in schools for Spanish speakers.

The curriculum for the art and manual arts courses has also been constructed with the jungle child in mind. Because of the isolation from stores and towns, paper, paste, crayons, and similar materials which often are used in great quantities are not readily available. Moreover, these materials are usually expensive, and one cannot very well suggest spending money on art supplies when the people frequently lack sufficient money to clothe their children for school. However, each vernacular group has its own native arts and crafts, and the necessary materials for them are close at hand and can be collected free of charge. In addition to monetary considerations, one has to take into account that these native arts, if not taught in the schools, may be lost. Due to a lack of time many parents no longer teach them to their children who go to school. Thus, in order to keep native art alive and student expenses down, in many communities art classes have been set up with the adults of the community as teachers. The children are taught how to make such artifacts as baskets, combs, blowguns, spears, pottery, woven belts, and adornments, depending on the grade level and ability of the students. These artifacts are then sold so the school will have money to buy teaching supplies. The children, moreover, develop a growing pride in their own culture as they see their arts in demand.

As part of their schooling, the children work several hours each week in the school garden and take care of such school animals as guinea pigs, chickens, and rabbits. This "farming experience" teaches the children about soils and crops and about proper animal care. At the same time the gardens serve as a food source, since some schools have boarding facilities. If the food is not needed in the school, it can be sold for cash.

Social studies and natural science are taught from the jungle viewpoint. For instance, the geography lessons begin with the study of the states of Amazonas and Loreto, where most of the jungle children live, and are then expanded to include all the other states, thus progressing from the known to the unknown. These subjects are taught in both languages through the second grade so that the children are assured of mastering both the subject matter and their second language (Spanish).

Animals and plants discussed first in natural science courses are native to the jungle. The books used in teaching these subjects contain many activities which involve the children in their environment.

The hygiene presented in natural science courses keeps the needs of the jungle child in mind. For instance, since some families don't have access to soap, the course suggests *huito*, *cocona*, and lemon as substitutes for washing one's hair. (These are all jungle fruits which cut grease.) Because 90 percent of the jungle people suffer from parasite infestations due to poor sanitation habits, much time is spent on teaching about washing hands, bathing, washing clothes, cleaning houses, building latrines, keeping the pigs and other animals fenced in, boiling drinking water, cooking food sufficiently, sterilizing food which is to be eaten raw, washing dishes correctly, etc.

All instruction is done with the jungle home in mind. The section which prescribes that the people need to boil their water so that it will be pure tells them: "We must boil the water in a pan with a lid or in a teakettle. You can also use an earthen pot with a leaf for a lid." The instructions on "Keeping Food" tell the student: "We ought to eat in a clean place on banana leaves or a clean table." Good nutrition is also taught, using foods available to the jungle people.

The role of the teacher in the bilingual school is a crucial one, and his task is very demanding. The beginning teacher often needs considerable guidance in the planning aspects for the different levels and in the preparation of lessons for students working independently. But, as the teacher gains experience and as he furthers his own education, he learns how to cope with the demands of the teaching and is able to provide an education which "fits" the children of his community.

All of this helps equip the jungle child with a majority culture education, which, at the same time, is adapted to the needs of the local situation.[3] Buildings, scheduling, and especially the language of instruction and the curriculum all take into account the potentialities and needs of the indigenous community. This openness to the local situation in turn will teach the children how to function in their own setting within the context of the national culture.

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[3] For further discussion of this topic see Paul Powlison, "Adaptación de grupos indigenas a su medio ambiente frente al choque con la civilización," in *XXXVII Congreso Internacional de Americanistas, Actas y Memorias*, IV (Buenos Aires: Librart, 1968), pp. 261–76.

18

TRAINING NATIVE AUTHORS IN WRITERS' WORKSHOPS

Martha A. Jakway

NEED

One of the major goals of bilingual education is that vernacular speakers become fluent readers of their own language. To accomplish this, a large body of vernacular literature is necessary, both to help develop reading skills initially and to help maintain them. In addition, such a body of literature fosters the author's pride in his language and culture and thereby helps to create a positive self-image. Last, but not least, vernacular literature is essential to the continued use of the language in its written form.

In Peru, field linguists have endeavored to produce a basic reading series for each viable vernacular language studied,[1] and have prepared translations of health manuals, community development manuals, Scripture, and other informational books. Such a limited quantity of literature, however, is hardly sufficient to accomplish the aforementioned goals. What was needed was an authentic literature produced by the vernacular speakers themselves.

To train vernacular speakers in the skills necessary to produce their own literature, writers' workshops were developed.[2]

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[1] For languages such as Resigaro, which is currently spoken by only eleven people, vernacular literature has not been prepared, as it is obvious that such languages are about to become extinct.

[2] These workshops were first developed in Mexico. See Dorothy Herzog, "A Literature Workshop: Part I," *Notes on Literacy* 17:2, 1974, and Margaret Wendell, "Writer Training Workshops," *Notes on Literacy* 18:19–22, 1975.

The workshops brought together potential authors to share experiences and to learn how to set down ideas effectively in writing, as well as to learn the mechanics of typing, stencil cutting, duplicating, and putting a book together.

GOAL

The ultimate goal of the workshops was that the participants become contributors to their society by producing various types of literature—personal experience stories, descriptions, instructional manuals, histories of the culture, biographies, newspapers, legends, folktales, origin stories, primers, advanced readers and other books for the schools, and translations of materials from Spanish.

EXPERIENCE TO DATE

Eight writers' workshops have been held among various vernacular groups in Peru, the first in the mountain town of Ayacucho. At this workshop, fifteen Quechua speakers from six different dialects met for three months. Later, a two-month workshop was held for fifteen Aguarunas in their tribal area. Asháninca Campa and two San Martín Quechua workshops were held in their respective areas, while two two-month workshops for six more dialects of Campa were held at Yarinacocha. The eighth workshop, held in the mountains, served as a follow-up for the Quechua writers who attended the workshop in Ayacucho.

Since I was more directly involved in the Aguaruna and the first Quechua workshops, most of the experiences referred to here are taken from those seminars.

Staff

Two Aguaruna men, former bilingual teachers, were trained specifically to teach in the Aguaruna workshop and were given additional training by the SIL literacy worker as the workshop progressed. Teachers for the Quechua workshop in Ayacucho were the literacy workers themselves. The San Martín Quechua workshop was supervised by an SIL field worker, but was taught by two of the participants from the Quechua workshop in Ayacucho. The remainder of the workshops were taught by literacy personnel.

Participants

The choice of participants was crucial to the ultimate success of the program. Selection included: their knowledge and appreciation of their own culture and language, as well as a positive awareness of the Spanish language and culture; a wide background of experiences from which to draw; some facility with words; and a desire to express themselves in writing.

To help determine who would best meet these requirements, we asked those who expressed an interest in participating in the Aguaruna workshop to submit a story they had written. These stories were often the determining factor in the final selection.

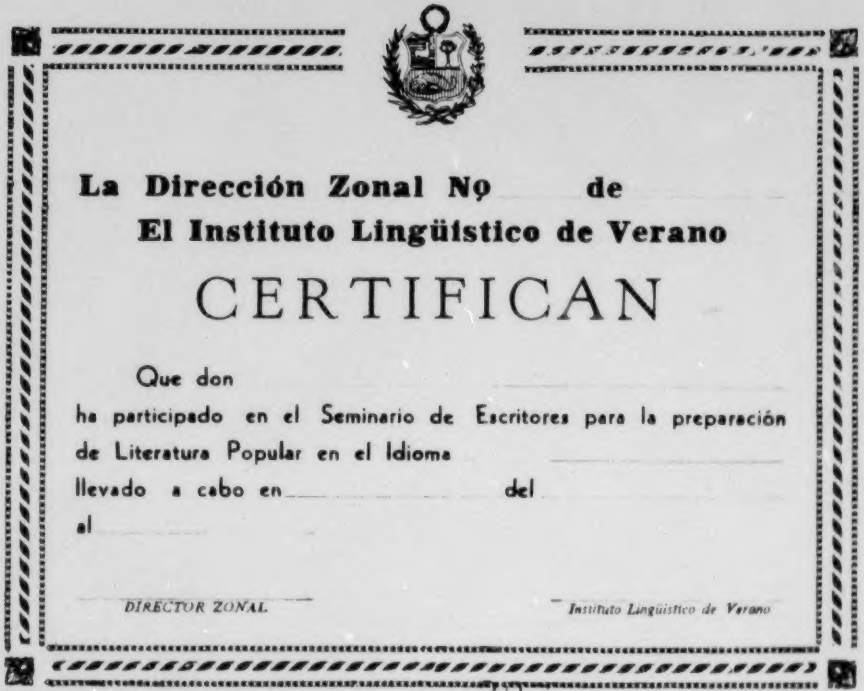
We also tried to choose participants from many different areas so that the literature would represent the whole vernacular group and stimulate a wider production of materials.

Stages of writing

In discussing the production of vernacular literature, Wendell (1975) and Herzog (1974) describe four stages of writing, from the easiest to the most difficult.

First stage writing deals with topics within the author's experience and within the culture of both the author and the reader.

- *Second stage writing* deals with topics within the experience of the author but outside his own culture. Writing at this stage is more difficult to express clearly enough so that the reader will understand fully.
- Writing about a topic with which neither the reader nor the author have had experience is considered to be *third stage*



La Dirección Zonal Nº ________ de ____________

El Instituto Lingüístico de Verano

CERTIFICAN

Que don ____________

ha participado en el Seminario de Escritores para la preparación de Literatura Popular en el Idioma ____________

llevado a cabo en ____________ del ____________

al ____________

DIRECTOR ZONAL

Instituto Lingüístico de Verano

Figure 18.1. Certificate presented for attendance at a writers' workshop.

writing. Information for this type of literature must be gathered from reading resource materials and/or interviewing persons who are knowledgeable on the subject. This information is then presented in the free idiomatic style of the vernacular.

- Translation, or *fourth stage writing*, is the most difficult because it is not within the experience of the writer or the reader, and both form and style are limited by the original document.

Location

One of the more important factors to be considered in determining the location for each workshop was the stage of writing at which the participants were working. If the majority were working on stage one or stage two materials, the area where the vernacular was spoken provided the type of resource materials needed, and the writer could better test the accuracy and acceptability of his work.

On the other hand, if the majority of the participants were working on third and fourth stage materials, where the writing depended on resource materials outside the culture, a location was chosen which provided not only a wealth of resource materials in the form of books and specialists in various fields, but also a whole gamut of new experiences about which to write.

In some vernacular groups, however, lack of reasonably-priced transportation to another location and other factors have made the home area of the group the more advantageous location for the workshop, regardless of the stage at which the participants were working.

Authorization

Once the location for the workshop had been chosen, steps were taken to tie it officially into the existing educational program. In the case of the Aguaruna workshop, for instance, a group of bilingual teachers sent a petition to the area Director of Education, requesting that the workshop be incorporated into his official yearly plan, and that he designate one of the bilingual school plants as the location and appoint a literacy worker from SIL to serve as official advisor for the workshop.

The area director was delighted to grant these requests and authorized it as an extension course as soon as the literacy advisor submitted a plan for the workshop. The workshop was placed under the administration of the director of the bilingual school where the course was to be held.

When the workshop ended, a final report was filed with the area director, and he and the literacy advisor co-signed the certificates granted those who successfully completed the course (see figure 18.1).

Physical plant

After official permission for the workshop had been granted, a location selected, and dates set, the physical plant was chosen or constructed and the necessary furniture was obtained or built. After holding several workshops where there was barely enough space for each participant, it was concluded that one of the most important considerations in the choice of a physical plant was that there be ample space where more than one activity can take place simultaneously and people can move about freely.

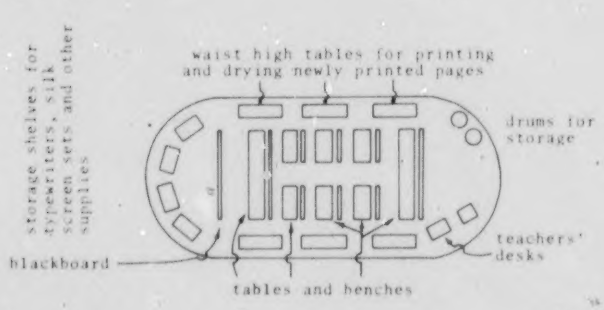

storage shelves for typewriters, silk screen sets and other supplies
waist high tables for printing and drying newly printed pages
drums for storage
teachers' desks
blackboard
tables and benches

Figure 18.2. Layout of the physical plant for the Aguaruna workshop.

In the case of the Aguaruna workshop, such a building was constructed of native materials (figure 18.2). Storage shelves for typewriters and silk screen sets stretched along the end of the building. Large tables with ample space for typewriters and writing materials were constructed in the center. Care was taken to make them a comfortable height for writing and typing. Silk screen printing was to be done at long, waist-high tables constructed at one side of the building. These same tables were also suitably high for drying freshly printed pages and later for collating books. Fifty-five-gallon drums provided adequate storage for paper and books, keeping them away from moisture, insects, and animals. A blackboard was installed for teaching purposes, and a bulletin board for mounting displays of interest to the participants.

Schedule

The daily schedules for the workshops were flexible, depending on the desires and other responsibilities of the participants as well as on the workshop's location.

Since two of the Campa and the first Ayacucho Quechua writers' workshops were held concurrently with linguistic workshops, half-day sessions were held for the writers, giving them sufficient time to act as language helpers for linguists. Among the San Martín Quechua, the workshop was held only in the morning hours to allow a half-day for the participants to do seasonal harvesting and planting. The Aguaruna workshop was planned for a full-day schedule because the participants had come from some distance and wanted to learn as quickly as possible in order to be free to return to their families and home responsibilities.

In the first Quechua workshop, Thursday was dedicated to field trips, planned to broaden the writers' experience and to provide stage two and three writing materials. Aguaruna writers, on the other hand, felt they wanted to preserve traditional tribal practices and crafts in their literature. So, rather than go on field trips, they invited the older men from the community to teach them about such topics as tribal medicines and cures, marriage customs, advice of tribal leaders to young men, how to spin thread, and how to make combs, belts, etc. The participants then wrote articles on the material presented and illustrated them. The best of these were selected and printed.

The Aguaruna workshop involved activities lasting all day Monday through Friday and Saturday morning, with Saturday afternoon left free for hunting, fishing, writing, washing clothes, etc. Sundays were also free. Nevertheless, the writers often spent much of this free time practicing their typing and composition. The following are the daily schedules for the two months of the Aguaruna workshop, given here as an example of what might be done in such a workshop.

First Month

8:00	Typing instruction
8:30	Typing practice
10:00	Recess
10:15	Discussion of topics
11:00	Aguaruna punctuation and grammar
11:45	Presentation of, and motivation for, writing assignments
12:30	Lunch and rest
2:00	Work on writing projects
5:00	Recreation and rest

Second Month

8:00	Typing instruction and practice
9:00	Discussion of topics
10:00	Recess
10:15	Story writing, working on book projects
11:45	Aguaruna punctuation and grammar
12:30	Lunch and rest
2:00	Book projects
5:00	Recreation and rest

Instruction

Typing. Spanish typing manuals were used in all the workshops; however, an exercise book in the vernacular would have been more appropriate. During the typing instruction period, in addition to the parts of the typewriter and instruction in keys and fingering, processes necessary for making dummies and cutting stencils were also taught. (See Wendell 1975:19–22.)

The teachers oriented workshop participants to the special care required for a typewriter in the jungle. For example, its users must keep it covered with a cloth to keep myriads of particles (some dead, some alive) from falling into it from the leaf roof. When not in constant use, it needs to be returned to its case and put in a plastic bag away from the humidity. Dried-out ribbons may be reactivated with kerosene.

During the first week, typing practice periods were devoted to simple exercises from the typing book. During the second week, participants began to type all their stories in dummy form and very shortly began typing the dummy for their first book. After the keys and fingering had been mastered, speed tests were given to help increase speed. In addition, writers learned to type letters and address envelopes.

Punctuation. The course in punctuation taught in the Aguaruna workshop included lessons in the use of capital letters, periods, commas, colons, semicolons, dashes, question marks, exclamation marks, and accents, as well as lessons in paragraphing. Since conversation is such an important feature of Aguaruna discourse, special attention had to be given to the punctuation of quotations. Care had to be taken to differentiate between the punctuation of quotations in legends and that of quotations in contemporary literature.[3]

Discussion of topics. The topics chosen to be discussed during a given workshop depended largely on the stage of writing at which the participants were working: the literary types used by the vernacular group: and the interests, needs, and problems of both the participants and the audience for which they were writing. In some groups much time was spent in discussing the worth of the vernacular as an adequate vehicle for the expression of ideas.

Listed below are the topics discussed in the Aguaruna workshop. (For other details concerning discussion topics, see Wendell 1975:12–15.)

What are the goals of the Workshop?
What is Aguaruna literature?
Why do the Aguarunas need a literature of their own?

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[3] See Mildred L. Larson, "Punctuating the Translation for Ease of Reading," *Notes on Translation* 60, 1976.

- The importance of the Aguaruna language as a means of communication:
  - What were the means of communication in the Aguaruna communities before the creation of schools?
  - What are the advantages of the written message over the oral one?
  - Written vs. oral style
  - Written vs. oral literature
- What are the types of writing in Aguaruna prose and poetry?
- What makes a good story?
  - Keep in mind the audience to whom you are writing—age, background, experience, interest.
- What are the stages in writing?
  - Writing stage one materials
  - Writing stage two materials
  - Writing stage three materials
    - How to interview
    - How to take notes on an interview
    - How to organize and rewrite the notes
    - How to gather information from resource material, organize it, and write it up
    - Writing stage four materials
- What is a book dummy and how is it made?
  - Measuring margins
  - Placing illustrations
  - Placing page numbers
  - Taping pages together
- What are the parts of the book and how is each prepared for the dummy?
  - How to plan the book cover (figure 18.3)
  - How to print capital and small letters by hand
  - Making the cover picture relate to the content of the book
  - How to make the title page (figure 18.4)
    - Centering on the typewriter
  - How to write the Spanish summary of the book and its placement in the dummy
  - How to make the copyright/publication history page
  - How to make the layout dummy (figure 18.5)

- How to cut a stencil
  - Measuring the margins
  - Typing on the stencil and using correction fluid
  - Outlining the illustrations
- How to print with the silk screen set
  - How to clean the silk screen set and the stencil
- How to collate pages and bind the book
- How to send copies to the National Library and the form for writing the cover letter

The cost of book production and setting sales prices for books
  Ideas for promoting the sale of books
Planning a newspaper
  Writing a newspaper
Planning the closing ceremony

Stage four writing

None of the beginning workshops has advanced very far into stage four writing. Some exercises leading up to translation were done in the Aguaruna workshop. In the first exercises the teacher read a Spanish story to the writers. They discussed the important incidents taking place in the story and then listed them briefly on the blackboard. They were then asked to write the story using the list and comparing it with the original story.

At the end of the second Quechua workshop, eight days were dedicated to the teaching of translation or fourth stage writing. Orientation classes, taught by a translator, emphasized the basic principles of translation and how to apply them. Translation was described as a process of (1) understanding the meaning of the Spanish and (2) expressing the meaning in idiomatic Quechua.

Morning hours were used to teach some of the basic adjustments that need to be made from Spanish to most of the Quechua dialects. These are: (1) passive to active: (2) implicit information to explicit (primarily expanding on items unknown in Quechua culture): (3) abstract nouns to verb phrases (this often involves adding implicit information): (4) use of direct quotes (from indirect discourse or to express attitudes or feelings); (5) Spanish idioms, i.e., the need to understand the meaning and express it in natural Quechua; (6) use of pronouns; (7) breaking up long sentences and complicated constructions. Each adjustment was taught by working through many simple examples and exercises together during class hours. The participants were then able to check their grasp of the daily lesson by translating a number of one-paragraph animal descriptions in the afternoon hours. Time was given during several morning hours to read the translation assignment in class and to discuss the adjustments which had been made during the translation process.

It soon became apparent that there was a marked difference in the ability and interest of the students. The writers who lacked ability in Spanish had a very difficult time understanding the source material which they were to translate, and it became evident that they would need to study a great deal more Spanish before they could undertake translation. On the other hand, some who knew Spanish well and were very interested made excellent progress, and with more training could become effective translators.

The *Translators' Field Guide*[4] lists a number of simple exercises which can be used to develop the skills in stage four writing:

Materials

The materials needed in a given workshop depend on the number of participants, the local availability of material, the stage of writing being included, and the goals of each workshop. A list of materials ordered for the fifteen participants in the Aguaruna workshop and for their postworkshop writing is given at the end of this chapter.

Challenges to ingenuity. There is much room for creative ingenuity in the isolated jungle workshop where transportation, space, and funds are limited. Teachers are always on the lookout for the best, most economical way of carrying out each process. In the Aguaruna workshop the stencil-cutting kit for making pictures included a flattened tin can for backing and a dry ballpoint pen for a stylus. Pie pans, cookie sheets, and squares of masonite have also been used for backing. Old toothbrushes and needles were used to clean the type on the typewriters. *Chambira*, a palm fiber used in making bags and hammocks, was used to hand sew the books together. It's much cheaper and more readily available than commercial thread or staples. When participants in one of the Campa workshops were ready to start typing dummies for their first book, they still didn't have an established alphabet. In order to make the most effective use of time, however, the teacher taught them to cut pictures on stencils, and they used this method to make picture books for beginning readers.

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[4] Alan Healey, ed. *Translators' Field Guide* (Ukarumpa, Papua New Guinea: Summer Institute of Linguistics, 1970).

RESULTS

The major results of the writers' workshops have been the large volume and variety of the vernacular books that have been produced. In each workshop at least one, and usually two, books have been produced by each individual writer. There have been a few books produced by a group of authors collectively.

Quechuas have produced books of songs, riddles, jokes, and poetry, as well as books about such topics as pasture grasses, prenatal and postnatal care, Quechua letter-writing form (developed by the author), school, personal experiences, stories for children, Tupac Amaru (a Peruvian hero), how married people should live, trips to Ayacucho and Lima, how an orphan boy became a professional teacher, some legends, and folk tales such as "The Deer and the Turtle," "The Child and the Fox," and "The Foxes and the Burro."

Aguaruna writers have produced books on Aguaruna musical instruments; jungle medicinal herbs; descriptions of traps, some for catching rodents, others for catching birds; how to make stools, blowguns, tote bags, combs, and crowns; how to

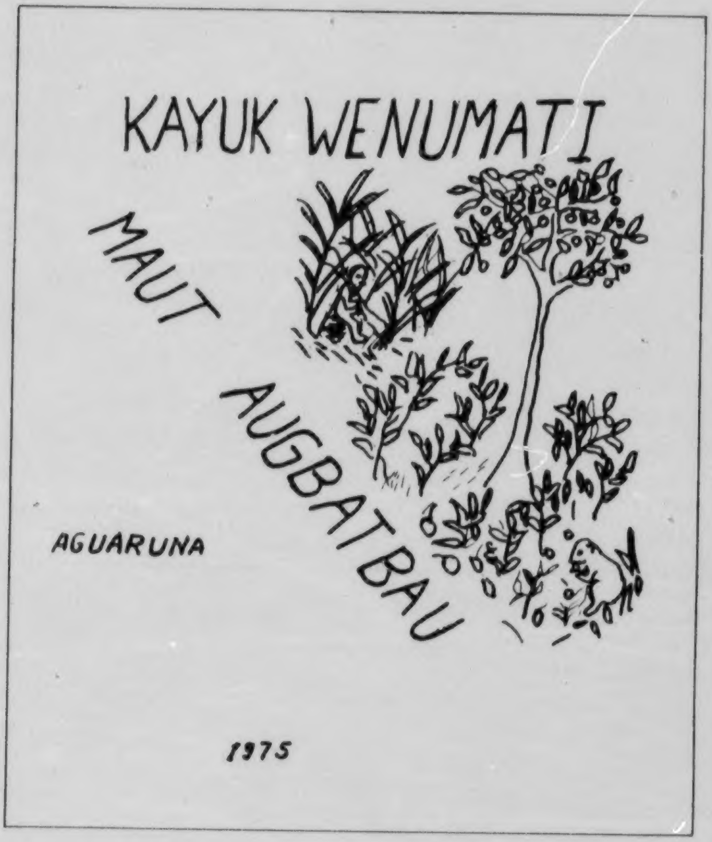
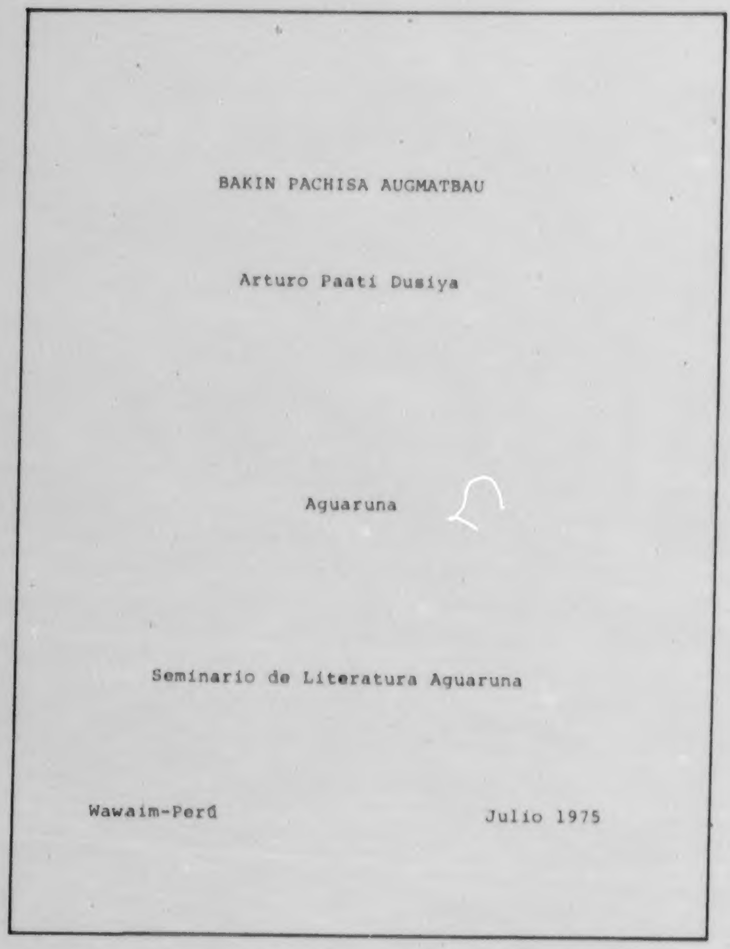

KAYUK WENUMATI
MAUT AUGBATBAU
AGUARUNA
1975

Figure 18.3. Book cover designed by a vernacular-speaking author.



BAKIN PACHISA AUGMATBAU

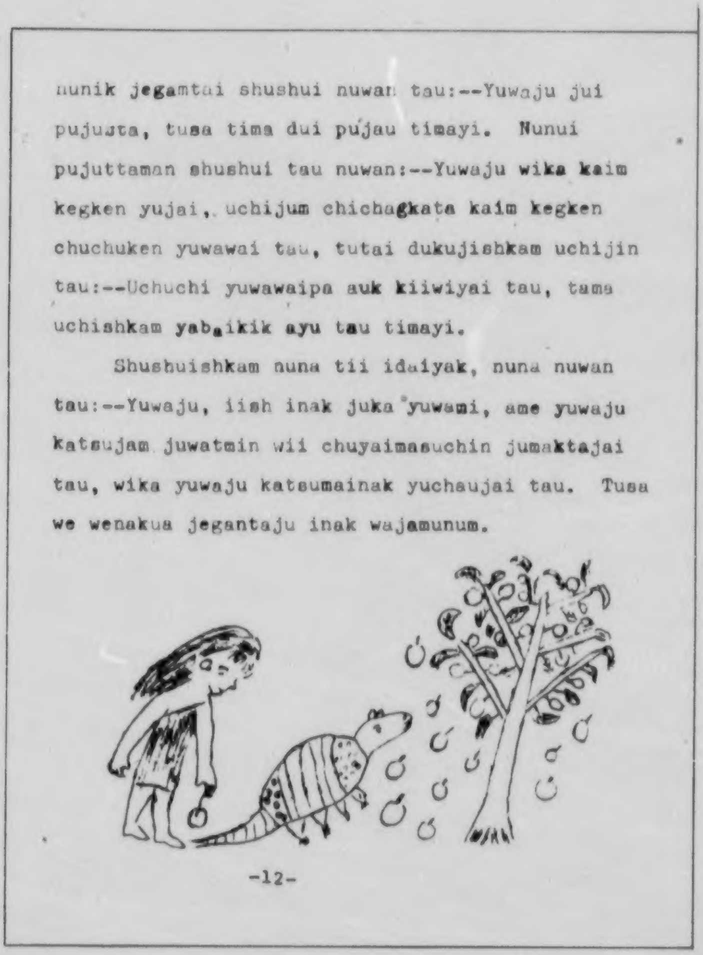
Arturo Paati Dusiya

Aguaruna

Seminario de Literatura Aguaruna

Wawaim-Perú Julio 1975

Figure 18.4. Title page of a story by an Aguaruna author.



nunik jegamtai shushui nuwan tau:--Yuwaju jui pujusta, tusa tima dui pujau timayi. Nunui pujuttaman shushui tau nuwan:--Yuwaju wika kaim kegken yujai, uchijum chichagkata kaim kegken chuchuken yuwawai tau, tutai dukujishkam uchijin tau:--Uchuchi yuwawaipa auk kiiwiyai tau, tama uchishkam yab$_a$ikik ayu tau timayi.

Shushuishkam nuna tii idaiyak, nuna nuwan tau:--Yuwaju, iish inak juka yuwami, ame yuwaju katsujam juwatmin wii chuyaimasuchin jumaktajai tau, wika yuwaju katsumainak yuchaujai tau. Tusa we wenakua jegantaju inak wajamunum.

-12-

Figure 18.5. Sample page of a reader produced at a writers' workshop.

prepare blowgun poison for killing birds and animals; how to prepare paint for the face and teeth; some beliefs concerning natural phenomena (lightning, thunder, rainbows); descriptions of animals from distant places; bird and animal stories; and legends and folk tales such as "How the Marañon River Got Its Name," and "A Man Who Ate an Egg from the Magic Bird."

Aside from the production of books, there were also some intangible results of the writers' workshops. As the Quechua workshop drew to a close, a new, positive attitude toward their language and culture replaced the old, negative one. The Aguarunas were proud to leave their workshop with a quantity of books dealing with various aspects of their changing culture, which would now be preserved for posterity. The books produced in one of the Campa workshops presented a new alphabet to their readers, who were accustomed to reading Spanish and perhaps some of the Asháninca Campa dialect, but not their own dialect.

Many more books have been produced by the vernacular writers since their workshops closed. When the trainees have become even more experienced in producing the freer type of literature, it is hoped that at least some of them will go on to master primer construction techniques and translation techniques to the degree that they can produce their own primers, school materials, and translated materials with little or no consultant help.

Materials for the Aguaruna Workshop

15	typewriters (a brand which makes good stencils)
15	large plastic bags for storing typewriters
11	silk screen sets, one for each region represented
20	packages of 48 stencils each
250	sheets of poster board for book covers (4 times legal size; newsprint can be used to cut down on expenses)
20,000	sheets legal size newsprint for typing dummies and printing books

15	100-page notebooks for writing stories
15	bottles of stencil correction fluid
15	tin cans to act as backing for cutting pictures on stencils (these can be cut with tin snips and flattened)
15	dry ballpoint pens for cutting pictures on stencils
15	pencil sharpeners
15	instructional manuals in typing (a book of exercises in the vernacular is ideal and can be made quite easily)
15	used toothbrushes for cleaning typewriters
15	bottles of alcohol (4 oz. each) and cotton for cleaning typewriter keys
15	rulers
15	razor blades
15	boxes of paper clips
15	typewriter ribbons
2	gallons of gasoline for cleaning silk screen sets
1	package of carbon paper
15	rolls of Scotch tape for putting together stencils and dummies
40	tubes of printer's ink
15	needles and *chambira* string for sewing books together
6	rolls of masking tape
15	pencils
15	erasers
1	package of chalk
15	manila folders, one for each writer to keep his materials
15	certificates (display 18.1)
1	Spanish dictionary
1	Spanish-Aguaruna dictionary

Assorted resource books in Spanish for writing stage 3 and 4 materials

19

CREATIVE WRITING IN AMUESHA BILINGUAL SCHOOLS[1]

Martha Duff Tripp

In the few years since the Amuesha[2] language has been given an alphabet, the people have become ardent fans of pencil and paper. To the Amuesha children in the bilingual schools writing is a most fascinating game, and each child has one notebook especially for his own creative writings. In their spare time, as well as during regular writing periods, they are eagerly writing down the things that they experience in their own world.

The child may be recording a recent fishing trip, a recent trip out to where the white people live, a turnover in the rapids, or a trip to cut down a bird's nest high up in a tree. He may be describing the jungle world he knows so well—birds and animals, trees and plants, and their domestic or medicinal uses. Or he may be recording a legend that he knows well from having heard the older people in the community tell it over and over, stories that each generation has passed on to the next orally, and now, as he records it in his little school notebook, the familiar words of the legend take on a strange new form—for the first time they are written!

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[1] Revised edition of an article entitled "El grabado en papel," which appeared in *Perú Indigena* 10, No. 24-25: p. 79-81, 1963.

[2] The Amuesha, who number some four to five thousand, live in the foothills of the Andes in the states of Pasco and Junin. Their language is Arawakan. There are currently 13 Amuesha schools (the oldest of which is 25 years old) with 21 native bilingual teachers.

On the other hand, it may be just a simple essay such as one little boy wrote on the use of fire:

> Fire very much serves us. There we boil our bananas, our manioc, our fish, our birds. It also serves to burn our fields. Fire very much serves all people. There are no people anywhere who can say fire does not serve them.

The Amuesha like to write their thoughts and feelings, as is illustrated by the boy who wrote with great love concerning the new school:

> Now I enter there. There my teacher teaches me. The words that I learn in this school are very good. If there had been no school, even now I would not know anything.... But already I have learned what our teacher teaches us. That's why I pray to God for our teacher. Now I am sad because the time has come to part from my companions [vacation]. When I think of my school after the classes have ended I become very sad having parted from my companions. I leave crying.

The linguists who work with the Amuesha have scores of notebooks filled with the writings[3] and drawings that the children have proudly presented to them. Subject matter is as varied and interesting as the individual children who write them. Many of the compositions have been used, with some minor editing, to make new intermediate primers and extra reading materials. The child's name is printed along with the story. For this reason, whenever the children have presented written stories to the linguists they have written on them very prominently, "written by the student so-and-so," hoping that their stories, too, will be made into a book and sent to all the other Amuesha schools (see figures 19.1 and 19.2).

In order to take advantage of the Amuesha's urge to write, a special series of books, called *The Amuesha Library*, was initiated. The purpose of this series was to stimulate the development of indigenous creative literature, while at the same time preserving in written form many aspects of the rich heritage of this indigenous group of the Peruvian jungle.[4]

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[3] These writings are on file in microfiche and are available from the Instituto Nacional de Investigación y Desarrollo de la Educación in Lima, Peru.

In one of the Amuesha bilingual schools where the children were just learning to write words they had never seen, a contest was conducted to see who could write the most bird names. The aim of this contest was to encourage the children to start writing creatively. The children enjoyed writing down the names of all the birds they knew, and they easily wrote all the bird names, even though they had never seen them in writing. Each child's list was well into the hundreds, but the boy with the highest total had a list of 336 different names. A linguist later correlated all the children's lists, coming up with a total of 470 different bird names. A book, entitled *A Dictionary of Birds* was made of the listing, and included drawings of many of the birds made by one of the students. Afterwards, as the book was being used in the school, the children one day, in a very scholarly manner, presented the linguist with an additional list of over 30 bird names, informing her that these names were not included in the book.

There was such interest in the bird contest that the children themselves suggested another contest on trees and plants. Although the linguists have not yet made a composite list, one boy alone wrote 661 different tree and plant names. Not only were the contests fun, but they helped the children realize they could write anything they wanted to, which further fostered their interest in creative writing.

The following is a sample of a bird description, which seems to be a favorite subject in their creative writing (see figure 19.4):

> I am the bird *morraco'quer*. I live in the jungle. I feed there in the jungle. I look for all kinds of little insects which I eat. I taste them as very good. I finish my food. I scratch out a place where I will squat down. When it is noontime I sit with my buddies (like kind). Also when it is

---

[4] Later, when other Amazonian groups began similar series, this series was renamed *Colección Literaria de los Grupos Idiomáticos de la Selva*.

late in the afternoon I sit with my buddies. When it is late in the afternoon I get up on a high tree branch where I will sleep. When I have perched on the high branch, I sing there. I do thus: *Po'cro, po'cro, po'cro.* In the morning I go down. This is just the way I do. (see figure 19.4).

The bilingual teachers themselves like to write things they think will be interesting reading for their students. One teacher wrote a long tribal legend. Another wrote about his experiences when he was lost for two days in the jungle. When the same teacher later went to Lima for an eye operation, he again spent a great deal of time writing. While he waited for the operation, friends showed him things of interest in Lima. They reported to the Amuesha linguists by radio: "Pedro scarcely looks at the things we show him for being so intent on writing it all down." Talking with his linguist friend by radio, he said, "I'm writing down everything I see and do. I thought we could make it into a book for our students and call it something like *Adventures in Lima.*"

Reading and writing have opened up a whole new mode of expression for the Amuesha people "ever since [as one boy wrote in an essay on the value of ink] we learned ink was to write with." The Amueshas have been making good use of it.

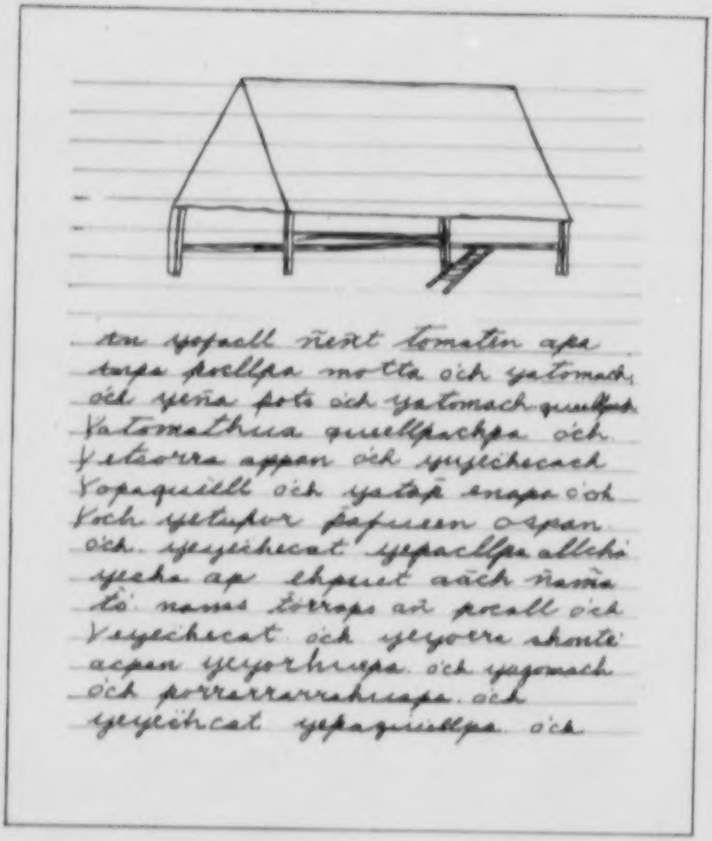
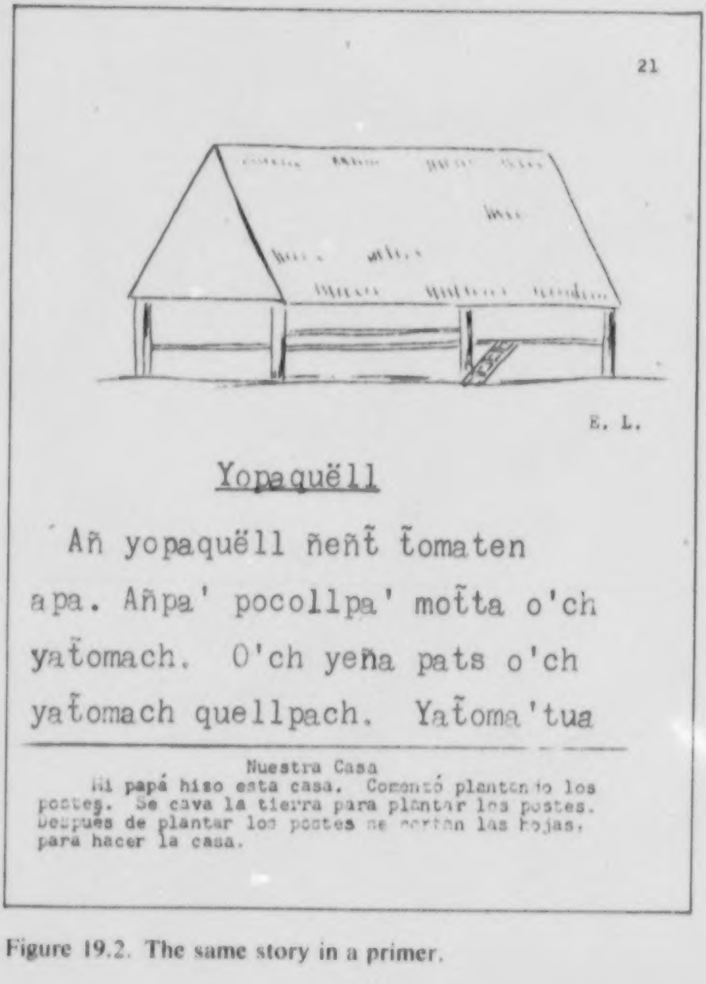


Figure 19.1. A page from a child's notebook.



21

E. L.

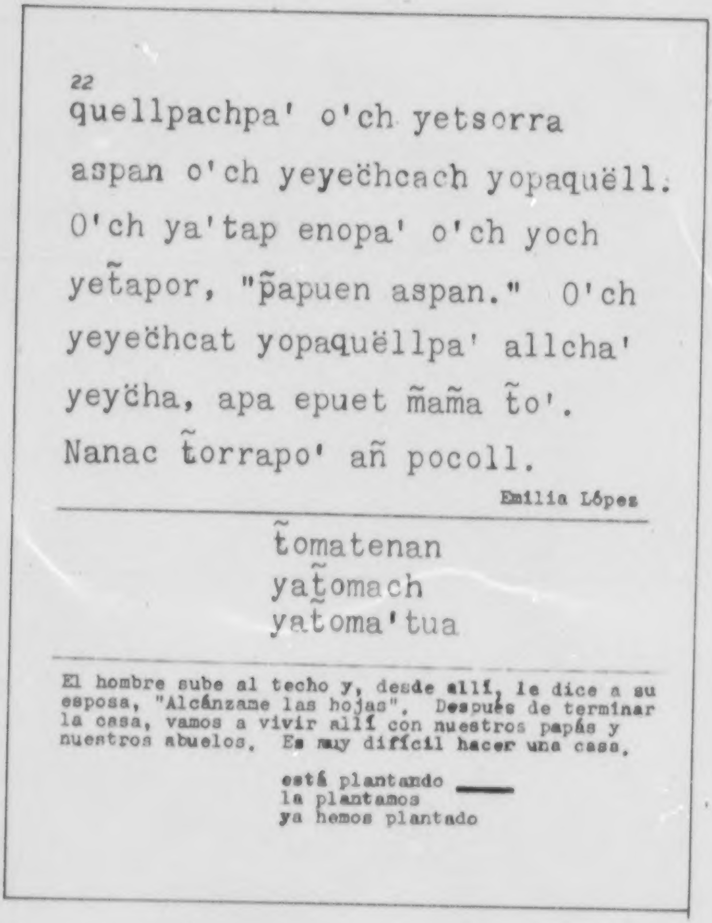
Yopaquëll

Añ yopaquëll ñeñt̃ t̃omaten apa. Añpa' pocollpa' mot̃ta o'ch yat̃omach. O'ch yeña pats o'ch yat̃omach quellpach. Yat̃oma'tua

Nuestra Casa

Mi papá hiso esta casa. Comenzó plantando los postes. Se cava la tierra para plantar los postes. Despues de plantar los postes se cortan las hojas, para hacer la casa.

Figure 19.2. The same story in a primer.



22
quellpachpa' o'ch yetsorra
aspan o'ch yeyečhcach yopaquëll.
O'ch ya'tap enopa' o'ch yoch
yet̃apor, "p̃apuen aspan." O'ch
yeyečhcat yopaquëllpa' allcha'
yeyčha, apa epuet m̃am̃a t̃o'.
Nanac t̃orrapo' añ pocoll.

Emilia Lópes

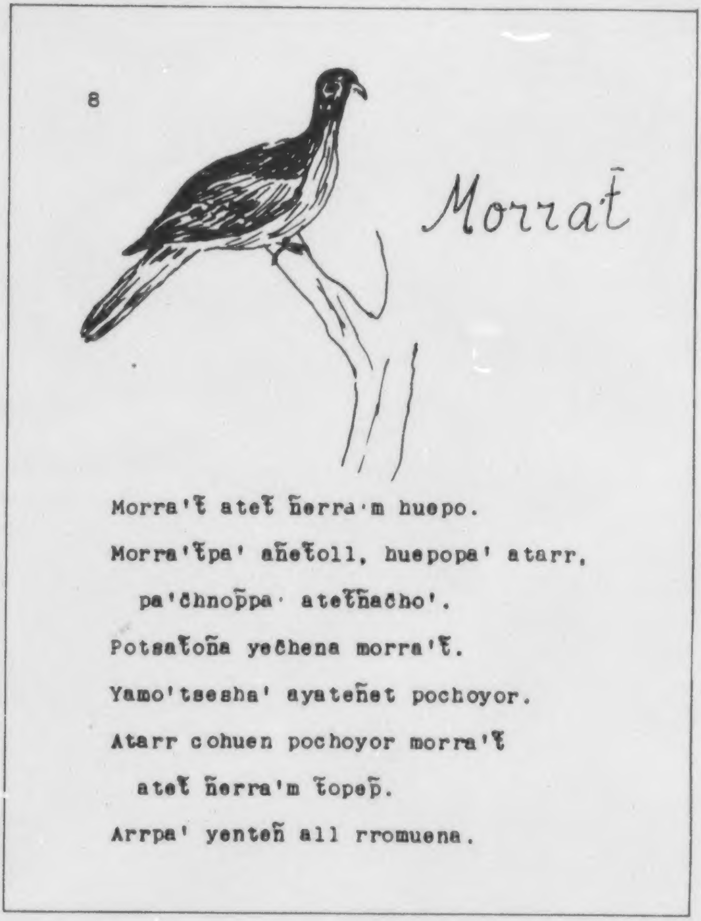
---

t̃omatenan
yat̃omach
yat̃oma'tua

El hombre sube al techo y, desde allí, le dice a su esposa, "Alcánzame las hojas". Después de terminar la casa, vamos a vivir allí con nuestros papás y nuestros abuelos. Es muy difícil hacer una casa.

está plantando ____
la plantamos
ya hemos plantado

Figure 19.3. Continuation of the same story.



8

Morrat̃

Morra't̃ atet̃ ñerra·m huepo.

Morra't̃pa' añet̃oll, huepopa' atarr,
pa'čhnop̃pa· atet̃ñačho'.

Potsat̃oña yečhena morra't̃.

Yamo'tsesha' ayateñet pochoyor.

Atarr cohuen pochoyor morra't̃
atet̃ ñerra'm t̃opep̃.

Arrpa' yenteñ all rromuena.

Figure 19.4. A page from a book on birds.

PART V

BILINGUAL EDUCATION AS IT RELATES TO THE DEVELOPMENT OF INDIGENOUS COMMUNITIES

Part V

Bilingual Education As It Relates to the Development of Indigenous Communities

In this section the program of bilingual education in the Peruvian jungle is fitted into its larger framework, that of the development of the indigenous communities in which the program takes place.

The first chapter shows how an adult education program was set up and materials prepared specifically to help the adults in their efforts to cope with everyday problems arising from contact with the national society. Details of the curriculum used are given to show the relationship of class material to the needs of the people.

In the second chapter, the interrelationship of bilingual education and other aspects such as the importance of linguistic and ethnographic studies, health, economic development, and translation is discussed to show how these must all be kept in balance as a field linguist works in an indigenous community. The training of vernacular speakers to carry the responsibility in each area of the work is presented as the means by which such a complicated program can be kept going and growing until members of the indigenous community itself are the ones who are training to train.

The final chapter deals first of all with general points such as the reality of the jungle situation, the universal needs of man—physical, psychological, and sociocultural—culture change, the culture itself, and what contributes to the detriment of a culture. Secondly, the work of SIL is discussed, along with

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how it relates to the above areas by linguistic and ethnographic studies, health programs, community development programs, and translation.

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ADULT EDUCATION: EDUCATION FOR EVERYDAY LIVING[1]

Martha A. Jakway

Over the years the man's job in Aguarauna society has been fairly well defined. He clears land for gardens; hunts and fishes to provide food for his family; makes blowguns for hunting; constructs houses and furniture; makes baskets used in fishing, hunting, and gathering; cuts down firelogs; weaves clothes (or sews them); makes adornments; cares for his family; and is responsible for tribal discipline. The Aguaruna woman takes care of the children and domesticated animals (pigs, chickens, dogs). She also plants, harvests, and brings home the garden products; makes the pottery; cooks; carries water; washes clothes; and cleans the house. With this division of labor, the society of the past was self-sufficient.

As regards social structure, until recently the older Aguaruna man was the individual of prestige and respect in the society. However, as outsiders discovered natural resources in the tribal area (including land) and realized that here was a potential market, many non-Aguarunas entered the area. The Aguarunas began to feel the need for communication with the outside world, and thus for education. But since it was the youth who attended school, the previously respected older men began to lose at least part of their prestige to the young adults who could now communicate in Spanish. As the society began to realize the need for, and convenience of, interdependence with the national society and to desire many of the products it had to offer, the older, respected men lost still more prestige by not being able to function actively in the processes of exchange.

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[1] An earlier version of this paper appeared in *Comunidades y culturas Peruanas* 1, No. 1:7–18, 1973.

In some parts of the region, merchants come to trade goods for rice, bananas, eggs, chickens, and other products. In other areas, the Aguarunas take their products to market to sell. Often the older men are exploited in these transactions because they are basically ignorant of measurement systems and they have no idea of the exact value of money nor of their products. Lumber workers come into the area and pay these tribal leaders a meager price to cut down their own logs and drag them to the river's edge.

If older adults wish to go to town to buy clothes or other necessities, they either must suffer the humiliation of asking one of the younger men to go with them or go themselves and be at the mercy of the vendors.

If an outsider comes to an Aguaruna village, the language barrier prevents the older adult from handling the public relations which in former years would have been his responsibility. Instead, with the grunts and gestures of a deaf and dumb person, he must send the visitor to a younger, educated man who can communicate with him in Spanish.

All of this is degrading for the older, wiser, previously respected man of the tribe. It also has a certain amount of damaging effect on the younger man, who then feels superior to his elder and tends to let his superiority carry over into every realm of his life, not seeking the customary counsel of the older man in problems involving home, family, and marriage.

The older adult needs to have a specialized kind of education available to him in order to regain status in his society and to become a responsible citizen of the country in which he lives. He needs to know how to count money and objects and how to manipulate weights and measures in order to buy, sell, and trade with the outside world. To do this he needs a basic knowledge of conversational Spanish. He also needs to know something about his country and something about personal documents and how they can be obtained for himself and his family.

As the children are taught principles of good personal hygiene, sanitation, and disease prevention in their school classes, the fact that these practices cannot be instituted in the home poses the need for health training among adults. Since most medical services in the country are staffed by Spanish-speaking personnel, adults also need to know Spanish to communicate their medical needs and to read the directions and labels on the medicine. Furthermore, as the children leave their village to procure further education, the adult needs to read and write to be able to communicate with them.

To meet the above needs, a special adult education program was started in 1969 and gradually developed over several years. Prior to this some adults had been taught to read by the bilingual school teachers. However, this new venture was programmed to educate the adult sufficiently in three years so that he could handle the amount of reading, writing, arithmetic, hygiene, and Spanish necessary to be independent in everyday situations. The majority of participants in the program were expected to reach the point of being able to relate to some extent to people outside their own community and culture.

Originally adult classes were scheduled for three or four hours a day for six months. Later this was extended to seven months. The schedule was as follows:

Table 20.1 Adult Class Schedule:

Subject	**First year**	**Second year**	**Third year**	**Taught**
Reading	45 min.	45 min.	45 min.	Daily
Writing	30 min.	30 min.	30 min.	4 days per week
Social Studies		30 min.	30 min.	1 day per week
Oral Spanish	45 min.	45 min.	45 min.	4 days per week
Hygiene	45 min.	45 min.	45 min.	1 day per week
Religion	15 min.	15 min.	15 min.	Daily

Over the three-year period reading instruction included one word book (reading readiness), three syllable books, three simple storybooks, a health book, a manual about cattle raising, and a manual about chicken raising—all in the vernacular.

A special oral Spanish course was written, built around conversations the adults needed in greeting and entertaining visitors in their communities, as well as in buying, selling, and trading. In 1970, cassette tapes and players were introduced in this Spanish course as teaching aids.

Upon comparing those who had learned the Spanish dialogues through cassette recordings with those who had learned only from the teacher, it was found that the adults participated better when they used cassettes. It would seem that they developed more self-confidence by using the inanimate tape. It was especially helpful for the women, who find it hard, because of cultural norms, to converse with the male teacher in an audible voice. Pronunciation was also better for those who learned through cassettes.

In the first year hygiene course, a book entitled *Health Education*[2] was used as a text. The lessons taught subjects such as nutrition, origins of disease, the necessity of boiling water, building latrines, and burning garbage, as well as personal cleanliness. In the second and third years the hygiene class included the study of common diseases, their prevention, their causes, and their treatment. Although it was not specifically programmed, the adult teacher checked community health and sanitation conditions along with his students and instituted reforms. In one village the hygiene students cleaned out a contaminated water hole and set up rules to keep it from becoming recontaminated.

During the first year of the writing course, students were taught all the printed letters—capital and lower case—through their use in syllables and words. The lessons paralleled those of the reading book. Dictation was stressed as soon as the students could write a word with sufficient ease, with the goal that the adult student would begin to express himself creatively as soon as possible. Cursive writing was taught in the second year, and in the third year the student learned to write Aguaruna words with their Spanish equivalents.

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[2] The names of textbooks have been translated from the original Spanish for the convenience of the reader.

In first year arithmetic, the teachers had supplementary lessons to accompany *Let's Count* and the other arithmetic books used in the bilingual schools. The emphasis was placed on teaching number facts through meaningful situations, such as buying and selling and preparing produce for markets. Each lesson was presented concretely, graphically, and abstractly. Reading, writing, and understanding numbers were taught concurrently with counting. Each addition and subtraction fact was taught in a problem situation, not in isolation.

Arithmetic in second and third year included materials used in the bilingual schools as well as the following supplementary subject matter: counting and reading of numbers to 100, using page numbers as a teaching device, using subtraction for giving change for various bills, and using all the weights and measures common to the Marañon area (*arroba, fanega, quintal* kilogram, ½ kilogram, liter, pound, gallon, *botella*, meter, etc.).[3] The emphasis was on the everyday situation. Role playing was used in the classroom as practice for real-life situations. Additionally, although it couldn't be programmed specifically, the adult teachers helped their students actually weigh products for market and went with them to sell them.

A course in social science was added in 1971. It included the following lessons: (1) location of Peru in South America; (2) the three regions of Peru and their characteristics; (3) departments of Peru; (4) province of Bagua and its capital; (5) the district, community and family; (6) symbols of Peru (shield, flag and national anthem); (7) why we celebrate July 28 (Independence Day); (8) president and ministers of the nation; (9) Lima, the capital; and (10) personal documents for citizens, including how, where, and when they can be obtained: Birth Certificate,

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[3] An *arroba* equals 25 pounds, a *fanega* about 2½ bushels, a *quintal* 100 pounds, and a *botella* is a standard-size bottle used for kerosene.

Marriage Certificate, Death Certificate, Military Registration, and Voter Registration.

The first Aguaruna adult teacher-training course was held in the community of Temashnum in June of 1969. Four teacher candidates attended: two had completed their fifth year of elementary school, one had completed third year, and one had finished the first year of high school. All but one of the prospective teachers were married men.

The courses lasted for one month, and were taught eight hours a day, five days a week. The mornings were spent in learning the methods and administration necessary for teaching the first-year class in the adult school. Emphasis was on teacher candidate participation. The afternoons were spent practice teaching a class of adults. Each candidate taught one subject for a week, and a different subject the following weeks. Each candidate had to observe and evaluate the others as they taught. Evenings were devoted to studying the material learned in the morning during the methods classes, as well as to making teaching aids and preparing for the courses to be taught in the adult class the next afternoon. Time was spent each morning evaluating the courses taught by the candidates the previous afternoon and giving both suggestions for improvement and compliments.

Four first-level adult teacher-training courses were held over a three-year period between 1969 and 1971 in which thirteen adult teachers were trained in locations within and outside the tribal area.

In 1970, a second-level course was introduced in the tribal area for those who had completed the first-level course, in order to train them to handle second- and third-year classes. (This had not been included in the first-level course). The basic method of teaching—theory and evaluation in the morning with practice teaching in the afternoon and study and preparation in the evening—was the same as for the first-level course.

In 1973, seven adult classes were functioning. (Six others had functioned for their allotted three years and were no longer needed.) The following information was gleaned on a visit to three of the functioning adult classes by testing the students in reading and arithmetic, chatting with them in Spanish, and observing them in community life. The students in all the communities mentioned could carry on a conversation in Spanish based on the vocabulary learned in their courses.

COMMUNITY OF SHUSHUG AFTER TWO YEARS OF CLASS:

83% slow, but independent readers
17% not yet independent readers
69% had mastered counting, addition, and subtraction
31% had mastered counting only

COMMUNITY OF TEMASHNUM AFTER TWO YEARS OF CLASS:

60% slow, but independent readers
40% not yet independent
80% had mastered counting, addition, and subtraction
20% had mastered counting only

One member of the class at Temashnum had bought his own scale, asked prices of the buyers, weighed his own produce, and helped his fellow villagers weigh theirs. He could calculate how much he should receive for produce and had gained the self-confidence necessary to communicate that information to the buyer. The effectiveness of his training is immediately evident: in this community the outside buyer gives the members exactly what they ask for.

COMMUNITY OF YUTUPIS AFTER TEN MONTHS OF CLASS:

44% slow, but independent readers
56% know open syllables, but had not mastered closed syllables
44% had mastered counting, addition and subtraction
56% had mastered counting only

The adult program functioned for five years. For part of this period, teachers were hired and paid by the government, which also provided textbooks and school materials. For the remainder of the time, teachers were hired and paid by a private institution, which provided additional school materials.

Because of a change in national policy, the adult program was discontinued in 1974.[4] Enough testing of the program was done, however, to demonstrate its effectiveness as a means of helping the Aguaruna adult participate independently and creatively in the life of the nation while maintaining the dignity which his own language and culture have provided for him through the centuries.

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[4] If the Aguaruna adult education program were to be continued, the following additional materials are proposed: (1) A second Spanish course in which vocabulary and conversations for the following situations are planned: a trip to the doctor; a trip to a Spanish-speaking town to sell produce and buy tools, medicines, sprays, and insecticides, as well as agricultural supplies (e.g., fencing for animals); procurement of various personal documents; buying animals (pigs, cows, guinea pigs, and rabbits);talking about the care of tools; asking about plant and animal disease. (2) A language book to include instruction in writing receipts, bills, shopping lists, personal letters, business letters, etc. (3) Two arithmetic books for adults which combine material from the books used in the bilingual schools and the supplementary materials mentioned earlier in this report.

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TRAINING TO TRAIN: THE KEY TO AN ONGOING PROGRAM

Mildred L. Larson

The role of SIL in the Peruvian bilingual education program has been mentioned at various points in this book. A basic premise followed by SIL is the principle that a program should not only train people to perform a certain task but should also train them to train others. For example, vernacular speakers are trained to teach in bilingual schools, but more than that, at least some of them are prepared to train others to teach. Only with this added step does the program become self-propagating. In the area of agriculture, for example, people are trained both to raise chickens and to teach the members of their community how to raise them. This training may be by direct instruction or by example, but the key is that the process is dynamic and leads to an ongoing and developing program. (Chapter 8 describes in some detail how training to train was carried out in the area of school supervision.)

Perhaps one of the more difficult problems facing a person working in a program such as the one presented in this volume is how to keep a balance between the many aspects of the work as he moves towards turning each aspect completely over to others who are permanent in the situation. But it is by doing exactly this that he hopes to advance all aspects of the program simultaneously to completion.

In describing the Vicos model of social change, or more particularly the relationship between enlightenment and skill, the author, Dobyns,[1] concludes by saying that there is a "strong functional linkage between change in (1) economics and technology, (2) education, (3) nutrition and health, and especially (4) social organization." (Dobyns also points out the interrelation of these various aspects.) His list is similar to that given in chapter 22 of this volume where, in addition to ethnolinguistic studies, other SIL activities and concerns are discussed, among them (1) the objectives of the ethnic group, (2) health, (3) community development, (4) education and contact with state authorities, and (5) spiritual values.[2]

Most of this book describes the educational aspect; however, other aspects of the total program are closely tied in to education. The Peruvian government has asked SIL to work not only in linguistic investigation and bilingual education, but also in matters of health and community development. The training of vernacular speakers to train others applies in these areas as well.

Such a varied and yet integrated program can be very demanding on the SIL worker's time. In fact, any one aspect could take up all of his time. It has been important, therefore, to follow a gradual development in each of the areas of SIL responsibility so that all advance simultaneously and complement one another. Although often two linguists are assigned to do the work with a single group, in some of the larger groups it has been necessary to use more personnel. However, even with more personnel, and with a gradual development in each area of the work, there is yet another way in which the work load is reduced to a reasonable size, that is, by training the vernacular speakers to carry certain responsibilities. For example, in bilingual education, it has been pointed out already that the program is one of training vernacular speakers to do not only the teaching, but eventually the supervision and preparation of materials. When all of this is finished, the work of SIL in bilingual education is completed for that group.

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[1] Henry F. Dobyns, Paul L. Doughty, and Harold D. Lasswell, *Peasants, Power, and Applied Social Changes: Vicos as a Model* (Beverly Hills: Sage Publications, 1964), p. 163.

[2] We recognize that health, education, and economic development are all integral parts of "community development." However, for convenience, health and education are discussed separately and "community development" is used for what might be more accurately termed "economic development."

The charts on the following pages provide a historical synopsis of the work of SIL among the Aguarunas as an example of how the various responsibilities were actually carried out year by year for this language group. There are, of course, other ways it might have been done. Details would be different for other language groups, but the general plan of keeping a balance between linguistic investigation, ethnographic investigation, the education program, the preparation of materials for the schools, the health program, the community development program, and the translation of literature is shown by this synopsis.

The charts also show how the training began with a few and grew until even this training and also the supervision was done by vernacular speakers themselves. A plus sign occurs before those items in which a vernacular speaker worked more or less equally with the SIL worker. An asterisk occurs before those items in which the vernacular speaker took the major responsibility or complete responsibility for carrying out the work. For example, +Cartilla 6 would indicate that that book was prepared by an Aguaruna and SIL worker working together, making approximately equal contributions. Cartilla 10 would indicate that the book was prepared by an Aguaruna speaker who had been trained by the SIL worker. Supervision, without an asterisk, indicates that the SIL worker did the supervision, but with an asterisk it means that an Aguaruna did it. These symbols help to show how the work was gradually put into the hands of the Aguarunas, who, in turn, often trained others. Thus, the day has come when SIL workers are no longer needed, but the programs continue in an indigenous manner. Bilingual school teachers, health promoters, and community development promoters are not marked by an asterisk, but the number working each year is given. In these cases the teacher or promoter is, of course, the one doing the work, having received training in his field of endeavor.

Because the Aguaruna group is one of the larger groups in

TABLE 21.1. SYNOPSIS OF SIL WORK AMONG THE AGUARUNAS.

	PERSONNEL	LINGUISTIC INVESTIGATION	ETHNOGRAPHIC INVESTIGATION	TEACHING MATERIALS	BILINGUAL EDUCATION		HEALTH	COMMUNITY DEVELOPMENT	TRANSLATION
					SCHOOLS	COURSES, CONF.			
'47 to '49	2 linguists (first team)	Beginning studies of the phonology & morphology.	Ethnographic observation				Treatment of sick.		
'51 to '53	2 linguists (second team)	Phonological analysis. Provisional practical orthography. Continuing lexical and grammatical studies.	Ethnographic observations	Primers 1,2, & 3 (tentative)	1 teacher Supervision.	Teacher Training Course (TTC)	Treatment of sick. Visit of SIL doctor.		
'54	1 linguist 1 nurse (third team, permanent until 1977)	Continuing lexical and grammatical studies. Review of phonological analysis	Recording of legends and songs. Ethnographic observations.	Math 4 & 5	7 teachers. Supervision.	TTC	Treatment of sick.	Citrus plants.	
'55	1 linguist 1 nurse	Phonological analysis & practical orthography approved. Comparison of Aguaruna and Huambisa vocabulary.	Study of kinship. Recording of more legends and songs.	Revision of Primers 1 & 2; Primers 4 & 5, Math 6, 7, & 8 Soc. Studies 1, 2, & 3.	9 teachers. Supervision.	TTC	Treatment of sick.	Citrus plants, new breeds of chickens introduced.	Stories from the Life of Christ.
'56	2 linguists 1 nurse 1 secretary	Morphology of the noun and pronoun systems written. Study of the morphology of the verb system. Beginning of pedagogical grammar.	Study of the religious system. Study of the political system.	Primer 6 Writing Books 1, 2, & 3.	11 teachers. Supervision.	TTC	Treatment of sick.	Citrus plants, Chickens.	Book of stories from the Life of Christ.
'57	2 linguists 1 nurse	Morphology of the independent verb system written. Text analysis.	Article on the socio-political system.	Math 9 & 10 Revision of Primer 3	15 teachers. Supervision.	TTC	Treatment of sick.	Help with work on land papers, 8 villages.	
'58	3 linguists 2 nurses	Publication of small dictionary. Clause analysis begun. Text analysis.	Article on the revenge system. Demographic data of ten communities.	*Primer 7 (Hygiene).	17 teachers in 7 communities. Supervision.	TTC Teachers' Conference.	Treatment of sick. Visit of Doctor. 1 Health Promotor.	*Organization of cooperative (by Coord. of Biling. Ed. Cocoa seeds.	*Genesis 1-3

	PERSONNEL	LINGUISTIC INVESTIGATION	ETHNOGRAPHIC INVESTIGATION	TEACHING MATERIALS	BILINGUAL EDUCATION		HEALTH	COMMUNITY DEVELOPMENT	TRANSLATION
					SCHOOLS	COURSES, CONF.			
'59	2 linguists 1 nurse	Text analysis. Study of dependent verbs begun. Pedagogical grammar lessons (20). Work on texts for IBM Concordance.	*Transcription of legends and songs.	*Revision of *Social Studies* 1.	22 teachers in 13 communities. Supervision.	TTC Teachers' Conference.	*Treatment of sick. 3 Promotors.	Rubber plants to village of Temashnum.	
'60	2 linguists 1 nurse	*Work on texts for IBM Concordance. Continuation of work on pedagogical lessons		*Revision of *Social Studies* 2 & 3.	28 teachers in 22 communities. Supervision.	TTC Teachers' Conference	*Treatment of sick. 5 Promotors. Two month visit of doctor.	1 Community Promotor trained	Passages from the Life of Christ
'61	1 linguist 1 nurse	*Work on texts for IBM Concordance. *Filing of vocabulary.		*Primer 4	35 teachers in 28 communities. Supervision.	TTC Teachers' Conference.	*Treatment of sick. 7 Promotors. 200 vaccinations, whooping cough.	Rice project at the village of Temashnum.	Publication of *Life of Christ*
'62	1 linguist 1 nurse	Preparation of *Vocabulario Aguaruna* (Aguaruna-Spanish dictionary).	"Aguaruna Humor"		46 teachers in 34 communities. Supervision.	TTC Teachers' Conference.	*Treatment of sick. 8 Promotors. *Medical Manual*.	3 Community Promotors trained. (Numbers are accumulative.)	*Gospel of Mark*
'63	1 linguist 1 nurse	KISTIAN CHICHAM UNUIMATAI (Beginning Spanish grammar in Aguaruna). "How time is described in Aguaruna"	"How the Bilingual Schools have changed the Aguaruna culture."		48 teachers in 35 communities. Supervision.	TTC Teachers' Conference.	*Treatment of sick. 8 Promotors. Study of Leishmaniasis.	16 Community promotors. 2 carpenters, 2 mechanics trained.	*Gospel of John*
'64	1 linguist 1 nurse 1 educator	Phonology published. Study of the syntax begun. *More work on IBM Concordance texts.	Demographic data of the community of Nazaret.	*Primer 1-4	56 teachers in 36 communities, 1,445 students. Supervision. 6 part-time supervisors.	TTC Teachers' Conference.	*Treatment of sick. 9 Pro. 300 vaccinations for whooping cough.	23 Com. Pro. 3 carpenters, 3 mechanics 1 storekeeper *CD Conference	*Titus, I John*
'65	1 linguist 1 nurse 1 educator	*Completion of work on IBM Concordance. Vocabulary study -birds		*Primers 2-4 and 3-4.	64 teachers in 38 communities, 1,587 students. Supervision.	TTC *Teachers' Conference.	*Treatment of sick. 10 Promotors.	34 Com. Pro. 3 carpenters 4 mechanics, 2 storekeepers 4 home econo. *CD Conference	

	PERSONNEL	LINGUISTIC INVESTIGATION	LINGUISTIC INVESTIGATION	TEACHING MATERIALS	BILINGUAL EDUCATION		HEALTH	COMMUNITY DEVELOPMENT	TRANSLATION
					SCHOOLS	COURSES, CONF.			
'66	1 linguist 1 nurse 1 educator	Publication of *Vocabulario Aguaruna de Amazonas*.		*Primer 9 (Hygiene book)	74 teachers in 38 communities, 1,764 students. 3 teachers of adults, 25 students.	TTC *Teachers' Conference. Training of Teachers of Adults (TTA).	*Treatment of sick. 11 Pro. Health Promotors Conference. Supervision.	44 Promotors. CD Conference.	*Acts [illegible] for Aguaruna.
'67	1 linguist 1 nurse 1 educator				88 teachers in 42 communities, 1,976 students. 10 part-time supervisors. *Supervision. 5 teachers of adults, 131 students.	TTC *Teachers' Conference, TTA	*Treatment of sick. 12 Pro. Health Promotors Conf. Health Pro. Course (HPC) in tribe.	11 Promotors. CD Conference. Occupational Training Course (OTC) in tribe.	*I & II Thessalonians *I & II Timothy
'68	1 linguist 1 nurse 1 educator		Observations of culture.	*[illegible] (Writing exercises)	96 teachers in 56 communities. 2223 students. 4 full-time sup. 3 part-time sup. 5 teachers of adults, 100 students. Girls' school planned.	TTC * Teachers' Conference. Training Course for Supervisors (TCS).	*Treatment of sick. 12 Pro. Health Promotors Conference. Supervision.	57 Promotors. 1 Promotor trained in cattle. CD Conference.	*[illegible] Luke *85 O.T. Stories
'69	1 linguist 2 nurses 1 educator 1 anthrop. 1 lab tech.		Study of the shaman. "How Aguaruna Show Affection"	*[illegible] (literature collection) *Revision of Math 4 & 5	[illegible] teachers in 51 communities, 2,528 students. 4 full-time sup. 3 part-time sup. 11 teachers of adults, [illegible] students. Girls school started, 40 girls. 9 teachers from Huambisa dialect added to the supervision.	*TTC *Teachers' Conference. [illegible] (at center) Supervisors' Orientation Course [illegible] in tribe. 2 TTA (one at center, one in tribe). *7 Area Pedagogy Workshops.	*Treatment of [illegible] vaccinated [illegible] Visit of [illegible] Doctors. [illegible] 11 Pro. Health Promotors' Conference. Supervision.	[illegible] Com. Dev. Promotors. CD Conference. [illegible] trained in cattle. *[illegible] project at [illegible]. [illegible]	*[illegible] *[illegible] *[illegible] *[illegible] *[illegible]

	PERSONNEL	LINGUISTIC INVESTIGATION	ETHNOGRAPHIC INVESTIGATION	TEACHING MATERIALS	BILINGUAL EDUCATION		HEALTH	COMMUNITY DEVELOPMENT	TRANSLATION
					SCHOOLS	COURSES, CONF.			
'70	1 linguist 1 nurse 1 educator 1 anthrop. 1 lab tech (dentist & doctor for 1 month)	**Pedagogical grammar finalized for publication.**		**Boa Stories* (literature collection). *Teaching guide for 4 Spanish primers. *Revision of *Math 6 & 7.* *Revision of *Soc. Studies 3.* *Oral Spanish* (for adults).	121 teachers in 60 communities, 3,019 students. 5 full-time sup. 1 part-time sup. 9 teachers of adults, 135 students. *Supervision. *Supervision of Girls' School.	*TTC *3 Teachers' Conferences (3 locations) SOC in tribe. TTA (2 in tribe).	*Treatment of sick. 12 Pro. Vaccinations: 200 whooping c. 500 measles 500 TB. 2 Pro. trained in tooth extraction. Supervision. HP Conference. HP Training Course (tribe).	117 CD Pro. 4 trained in cattle. Cattle project at Urakusa. *Planning for Occupational Training Course (OTC) CD Conference	**Gospel of Matthew*
'71	1 linguist 1 nurse 1 educator 1 anthrop. 1 lab tech.		*Work on legends. "Aguaruna Land Use"	**Oral Spanish Course 3.* *Pedagogy Course (Spanish and Aguaruna).* *Civic Education* (for adults). *What my Son [illegible] About the City* (adv. primer).	128 teachers in 60 communities, 3,204 students. 6 full-time sup. 10 Teachers of adults, 136 students. On-the-job training of Supervisors.	*TTC *SOC *Teachers' Conferences (3 locations) 3 TTA *Supervisor at National Seminar on Biling. Ed.	*Treatment of sick. 12 Pro. Vaccinations: whooping c. measles 2 Dentistry Pro. Supervision.	*Continued training of CD Promotors in tribe. OTC at Urakusa. Plans for technical school begun. 3 store pro-projects begun. CD Conference.	**Revelation* **Hebrews* **Jude* **II & III John*
'72	1 linguist 2 nurses 1 educator 1 anthrop. 1 lab tech.		Transcription of songs. Study of species of edible plants. Work on cultural outline.	*[illegible]	131 teachers in 65 communities 3,550 students. 11 teachers of adults, 83 students. "Education for Daily Living"	*TTC *SOC *Regional Teachers' Conferences. 2 Supervisors attended Administration Seminar.	*Treatment of sick. 12 Promotors Supervision.	*Continued on-the-spot training of Promotors. *CD Conf. Revolving fund for CD begun. *Supervision. *Carpentry Course.	*Polishing of New Testament
'73	1 linguist 2 nurses 1 educator 1 anthrop. 1 lab tech.	"Phonological Contrast between Spanish and Aguaruna" (small articles).	*Cultural outline. (Social organization & value system). Work on legends. "Suicide in Aguaruna Culture".	Reading Readiness Books 1 & 2 for adults. Helped in preparation of [illegible]	137 teachers in 61 communities, 4,[illegible] students. 8 teachers of adults, 71 students. *Supervision.	*Supervision in Curriculum Course in Lima. *TTC *[illegible] Education Reform. *[illegible] special courses.	*Treatment of sick. 12 Pro. 12 Pro. trained in regional hospital. *Supervision. *Vaccinations. Health Pro. Refresher Course.	*CD Supervision *CD Conference *Revolving fund training. Better Housing [illegible] Transportation Project begun. *Translation of Declaration of Human Rights.	Proofreading New Testament

	PERSONNEL	LINGUISTIC INVESTIGATION	ETHNOGRAPHIC INVESTIGATION	TEACHING MATERIALS	BILINGUAL EDUCATION		HEALTH	COMMUNITY DEVELOPMENT	TRANSLATION
					SCHOOLS	COURSES, CONF.			
'74	2 linguists 1 nurse 1 educator 1 anthrop. 1 lab tech.	M.A. Thesis: *Nasality in Aguaruna*. *Recording of autobiographical material.	*Work on legends. Aguaruna Cultural Outline (witchcraft, training of young people). *The Aguaruna of the Alto Marañon*. *Illustrations for legends.	**Chicken Manual* *Adult reader *Adult Writing book. *Oral Spanish 2 (for adults) *Math (for adults).	131 teachers in 64 communities. 3 Supervisors in newly formed Educ. Centers. *Supervision by Educ Center *2 Supervisors in other areas. "Culturally Adapted Education".	*Regional Teachers' Conferences. *5 teachers attend special Educ. course in Lima.	*Treatment of sick. 10 Pro. *Supervision. Vaccination in 2 communities. *Leishmaniasis treatment, 2 communities. *Refresher Course (center) Coordination with Area Ofs. *1 studying at U. as Lab Tech	*Revolving Fund. *Supervision. *Heifer Proj. (distribution to 3 communities). *Rice and chicken projects, down-river area.	No *Testament* printing.
'75	2 linguists 2 nurses 1 educator 1 anthrop. 1 lab tech.	*Study of discourse structure. Article on Jivaro Reconstruction.	*Work on legends. (First vol. prepared with diglot in Spanish). Picture proj.	*Booklets printed by local authors.	133 teachers in 67 communities. *10 Supervisors in Ed. Centers. *1 supervisor in other area.	ITC for Writers' Workshop(?) *Writers' Workshop.	*Treatment of sick. 10 Pro. Coordination with Area office. *Promoters' supervisors to hospital for more training.	*Revolving Fund *Supervision. *Distribution Center const. Airstrip planning. *CD begun in new area. Transportation.	*New *Testament* distribution.
'76	2 linguists 2 nurses 1 educator 1 anthrop. 1 lab tech.	*Study of discourse *Editing of text material. Morphology & Morphophonemic studies.	*Work on legends.	*15 reading readiness charts, etc. *Primer for first level reading and writing (mimeo). *Draft of 2nd level of same. *Booklets publ by local authors.	(No report to SIL on numbers) *Supervision in Educ. Centers. "Development of School Supervisors Serve the Aguarunas".	*Writers' Workshop. 1 Supervis. trained in Primer writing.	*Treatment of sick. 10 Pro. Coordination with Area Ofs.	Cattle distribution. CD supervision downriver. *Revolving Fund. Transportation.	
'77	2 linguists 2 nurses 1 educator 1 anthrop. 1 lab tech.	Study of discourse. Dissertation: *The Function of Reported Speech in Aguaruna*. Morphology studies.	*2 volumes of legends published. *3 volumes of legends prepared for publication.	*Primer for first level approved printed. *Teaching Guides for Reading & Writing. *Reading Readiness book printed.	(No report to SIL on numbers) *Supervision in Educ. Centers. "Writers' Workshops".		*Treatment of sick. 10 Pro. *Health Pro. organized. *Plans for clinic. *New trainees at hospital.	*Revolving Fund *Supervision. *Truck Project. *Transportation project down-river area.	

*Aguaruna Council

the Peruvian jungle, it has been necessary to have more SIL personnel assigned than was necessary for smaller groups. With the additional personnel it has been possible for each SIL worker to specialize somewhat.

At the far left the chart is broken up by years, and the personnel available are listed for each year. These are people who were directly involved out in the tribal area for part of the year.[1] (The work could not have been accomplished without the help of the total SIL team—pilots, mechanics, radio men, secretaries, typists, printers, etc.) Next the linguistic and ethnographic investigation carried on that year is noted, then the school materials which were prepared, and details concerning bilingual education. This is followed by the work in the health and other community development programs. The last column gives the progress made in translation.

The chart is set up to show the actual history of the Aguaruna work: it indicates what, in fact, was done each year. To see the work done in a particular year, the reader should read horizontally across the relevant page. To follow the work done throughout the thirty years of SIL involvement in one phase of the work, the reader should read down the same column to the end of the chart. Items in quotation marks are the names of articles written; books are indicated in italics.

Each linguistic situation has many factors which result in a unique development of the work for that language group. The details will depend on the specific interests and abilities of the SIL workers involved, as well as on the availability of speakers of the language to become involved in the program. Although the information being presented has to do with the work being carried on by an SIL worker, it must be pointed out that in each of these responsibilities the assistance of speakers of the language is a vital ingredient. For example, no linguistic investigation or primer making could be carried out without the cooperation of a native speaker.

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[1] In the years 1947-49 two linguists began the work, but in 1951 two different linguists replaced them. They worked until early 1954. The linguist and nurse who began working in 1954 continued until 1977.

Also, the rate of development in bilingual education will vary according to the availability of educated bilinguals to become teachers. For example, the Aguaruna program developed rapidly because: (1) there were a number of bilingual men who already were able to read and write and who were eager to teach these skills to their own people, and (2) there was high motivation for bilingual education in the tribe as a whole because they had seen that knowledge of arithmetic and Spanish were the best defense against exploitation by the *patrones*; parents wanted their children to go to school (see chapter 5). The group as a whole was almost 100 percent monolingual, but with these two assets the program moved ahead very quickly.

Although the various aspects of SIL responsibility are listed on the chart in separate columns, there is an interrelationship between these various aspects which needs to be emphasized. Linguistics is listed first. The study of the vernacular underlies all the rest of the work. A good phonological analysis is necessary as a basis for determining the alphabet to be used in materials for the other aspects, since an inadequate analysis of the sound system will result in problems in reading and writing. Studies of the grammar and semantics are crucial to good vernacular primers and to effective translation of materials from Spanish.

Linguistics underlies ethnographic studies inasmuch as these are more accurate when done in the language, which itself is an important part of culture. An understanding of the social and political structure, leadership patterns, the native educational system, etc., is basic to an appropriate selection of prospective teachers. The health program is closely related to beliefs about sickness and curing. Community development is effective only in the matrix of native leadership and work patterns. Therefore, the field worker attempts to understand as much of the culture as possible.

We have already related the education program to linguistics and ethnography. Health and other community development aspects are, of course, also closely related to education. The bilingual school teacher is often the only one available to teach health principles and administer medicines. Without proper teaching and sufficient medical help, the school might have difficulty functioning because of sickness in the community. At the same time, the development of health promoters is dependent on their advancement in education to the point where they can read instructions and keep records. Lee[4] claims that the process of acceptance of a health program is much more rapid in a community which also has bilingual education.

The education program, on the other hand, is dependent on the total community development program. In order to have an effective school, the community must take responsibility for school construction, teacher selection, food for the students, money for materials, and the improvement of health by better food and facilities. But at the same time the community development program depends on basic literacy and knowledge of arithmetic and on good health if people are to work.

The translation of materials from Spanish will be accurate and effective only if based on linguistic analysis and knowledge of the culture, including belief systems, and if checked for accuracy and effectiveness with vernacular speakers who can read their own language well. Translation is involved in the preparation of advanced school materials, health education materials, and "how to" manuals for community development. The translation of Scripture is also related to community development in that the material translated provides standards of conduct which lead to cooperation and working together, replacing the feuding of the past.

Thus, all aspects must progress together in order to meet the needs of the whole man, the whole community, and the whole language group.

Carrying out such a program is far beyond the ability of two or four or even six SIL members working in a given language. The solution comes in keeping a balanced pace, as mentioned above, but even more important, in preparing vernacular speakers to do the work themselves and by their training others who in turn can train still others. The program must be both dynamic and self-propagating, since the SIL worker considers himself temporary. In the example of the Aguaruna project which is used here, almost all phases of the work are now being carried on by vernacular speakers. Indeed, as of 1978 SIL no longer had members working full time with this group.

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[4] Wilma Lee, "A Comparative Study of Health Indices of Two Chayahuita Communities: One with a Health Promoter and the Other without" (Paper presented at the Annual Meeting of the Society of Applied Anthropology, held April 2–9, 1978 in Mérida, Mexico).

In regard to linguistic investigation, in the early years the vernacular speakers were involved by giving information in response to specific elicitation of material and by being willing to tell stories and experiences into a tape recorder. As soon as possible several were taught to transcribe the recorded material and type it up. For example, much of the material appearing in the 1965 IBM computer text project[5] was transcribed and typed by Aguarunas. Of the linguistic material produced in the 1970s, all the discourse material was written, edited, and typed by Aguaruna speakers. In the phonological project, vernacular speakers were able to help in classification of phonological data. During 1978, five Aguarunas participated in a course entitled "Introduction to Linguistics," which was given during the teacher-training course. In this course they were given a preliminary introduction to phonetics and phonology and shown how these are related to the formation of alphabets. It is hoped that these courses will continue and be amplified until Aguarunas and other vernacular speakers of the Peruvian jungle will have enough linguistic background to write semi-technical descriptions of various aspects of their respective languages.

In ethnography the work also began with elicitation of information from vernacular speakers and observations made by the linguist. During the seventies much more of the work was done by Aguarunas, who wrote their legends, often consulting with older men for accuracy, and who also did a great deal of work on the translation of these legends into Spanish. The first two volumes are printed, and three other volumes have gone to press. Through the writers' workshops, material has also been put in book form by authors writing on the customs of the Aguarunas, the making of various cultural items, and on the stories and legends told them by their parents. The way is open for some of them to continue to produce ethnographic material since a number of them have learned a few of the essentials for collecting and organizing data (see chapter 18).

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[5] *Concordance of Aguaruna Texts* (Produced by the Joint Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute, under Grant GS-270, National Science Foundation, 1968).

In the production of school materials, the role of the vernacular speaker as a co-worker on all materials is always essential, but during the early years of the schools, the responsibility for the books was primarily the linguist's. Subsequently, various bilingual teachers were largely responsible for several advanced reading books. In 1976 an Aguaruna supervisor requested instruction in the details of primer making and began carrying this part of the work. In 1977 he not only prepared the materials but personally presented and defended them to those in charge of the pedagogy of school materials in the area education office and also in Lima. These materials are now printed and are being used as the basic primer for first level in the Aguaruna schools. Additionally, this supervisor has received further instruction and continues to prepare materials.

Chapter 8 of this book shows the development of the education program from the time when the SIL worker did much of the training of teachers and supervision of the schools until the present when both are in the hands of the Aguaruna and local education officials. A number of Aguarunas now hold key positions in school districts throughout the Aguaruna area.

As to training courses and conferences, the responsibility has also gradually been delegated to Aguaruna teachers. Some of these are government-sponsored courses, like the teacher-training course held each year at Yarinacocha. During this course the SIL worker taught the Aguaruna pedagogy class (see chapter 6); however, beginning in 1970 this responsibility was also gradually turned over to Aguaruna supervisors (see chapter 8). The teachers' conferences are described in chapter 9. These were coordinated by the SIL worker during the early years, with the teachers themselves gradually doing more of the planning and carrying out of details. From the beginning, each conference was led by an Aguaruna director and secretary, and the SIL worker was just one of the group and could make suggestions. The conferences fostered a great deal of communication, and during the 1970s they also began to be completely coordinated by the supervisors. Health promoter conferences followed the same pattern as did the community development conferences which had been started. Although the teachers' conferences have not been held in recent years, the pattern is there, and Aguaruna leaders have, in the last few years, used this pattern to organize the Aguaruna Council. Health promoter conferences and church-related conferences have also been held recently, initiated by the Aguaruna leaders themselves.

During the first years that they worked among the Aguaruna, the SIL field workers spent much of their time treating the sick, caring for people during measles and other epidemics. As with other aspects, this was gradually taken over by the community. First, the teachers learned to help in the health program, then health promoters[6] were trained a few at a time in special courses first held at the clinic at Yarinacocha and later in various communities. Finally supervisors were trained to work with the health promoters in order to free the field worker from this responsibility. The SIL workers next helped to incorporate the health program into the government program so that it would be ongoing and free from SIL involvement. At present an Aguaruna man who has studied at a national university has helped organize the health promoters and is preparing to set up a clinic or medical center in the tribal area. He has also done much to procure medicine for the health promoters to use in their work, and has made arrangements for the training of additional personnel at a hospital in Trujillo, on the coast.

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[6] Ralph W. Eichenberger, "La ciencia médica al servicio del hombre selvático," *Peru indigena* 3:221–27, 1952. See also Ralph W. Eichenberger, "How Medicine, Dentistry, and Linguistics Work Together," *Christian Medical Society Journal* 1964; Ralph W. Eichenberger, "Una filosofía de salud pública para las tribus indígenas amazónicas," *América Indígena* 26:119–41, 1966; and Wilma Lee and Joy Congdon, *Programa de servicio de sanidad para las comunidades nativas de la selva* (Lima, Perú: Ministerio de Educación, 1971).

At first SIL workers helped in community development by making available better grades of chickens and by introducing new plants. Assistance was also given in the preparation of land requests. A cooperative was organized to help the communities in marketing. During the sixties, emphasis was placed on the preparation of community promotors in the occupational courses given by the government at the Yarinacocha center. Many community leaders studied agriculture, mechanics, carpentry, etc. They then set up projects in their communities. Help was given in cattle and rice projects, both new ventures for the communities. In 1971, an occupational training course was held in the Aguaruna area.

During the seventies the goals of training Aguarunas continued in a broader fashion which was intercommunity in scope. These included finding solutions to problems of transportation and setting up a sizeable revolving fund for community projects to be administered by Aguarunas. The transportation system now includes several large boats and a truck which goes from the Aguaruna area to the coast with produce and then brings back supplies. It is an indigenous venture and at the moment seems to be very successful.

In 1977 the Aguaruna Council was organized under the direction of Evaristo Nuncuan. It consists of four delegates from each of the five main geographical regions, and its goal is to study and find solutions to problems facing the Aguarunas as a group. So far the delegates have been concerned primarily with matters of organization, training, health promotion, and agricultural production. The Council has helped to provide more training for community promoters. In the area of health they are currently building a central clinic and have established ways of providing medicines for the health promoters.

The Council meets with the Aguaruna General Assembly to help with sociopolitical organization, to give orientation, and to make plans for development. Most of those who attend the General Assembly have been trained in some aspect of community development or education. By working together in this way the Aguaruna are accomplishing much despite the problems they face.

Translation work has always involved both the linguist and the vernacular speaker, with the linguist being responsible for communicating the meaning of the material to be translated and the vernacular speaker being responsible for how the material is to be said in Aguaruna. In the process of translation, the vernacular speakers have learned translation principles which they have later put into practice by doing translation on their own. One person trained in this way translated some sixty-five stories from the Old Testament without the help of the linguist, all of which were well done and well received by the Aguaruna. The man who worked most on the translation of the New Testament is now continuing translation of the Old Testament by himself.

Much of the satisfaction for the SIL worker comes from seeing the vernacular speakers completely and confidently handling the various aspects of the work which he once handled, and knowing that these men will also train others. The dynamic has been activated, and the future direction it takes will depend on the desires of the indigenous peoples and on the resources available for them to fulfill these desires.

22

CULTURAL CHANGE AND THE DEVELOPMENT OF THE WHOLE PERSON: AN EXPOSITION OF THE PHILOSOPHY AND METHODS OF THE SUMMER INSTITUTE OF LINGUISTICS[1]

Eugene E. Loos, Patricia M. Davis and Mary Ruth Wise

Introduction

This chapter is a description of the philosophy and anthropological methodology underlying the work of SIL in Peru, especially those aspects pertaining to human relations and cultural change.[2]

The first section discusses the reality of the Peruvian jungle where the long history of contact between the ethnolinguistic groups and the Spaniards and mestizos have resulted in many cultural changes. Secondly, universal human needs and other basic concepts are considered. In the third section a general account is given of the founding of SIL, its basic principles, and its methods of operation. The report concludes with specific examples of the activities of SIL in the Peruvian jungle and some of their results.

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[1] A previous version of this article was published in *Actes du XLIIe Congrés International des Americanistes, Paris, 2/9 septembre de 1976* Vol. 2 (Paris: Societé des Americanistes, 1978) pp. 499–525. It is reprinted in its revised form by permission of the authors and of the Society of Americanists.

[2] The authors would like to express their gratitude to Fernando Fuenzalida, Alberto Escobar, Alejandro Ortiz, Aída Vadillo, Darcy Ribeiro, Sergio Tapia, Rubén Paredes, Allen Johnson, David Coombs, and Donald Lindholm, who read the first drafts of this work and made valuable suggestions.

The reality of the jungle and cultural change

The ethnic groups of the Peruvian jungle have been in contact with Western society for many years (in many cases since the arrival of the first explorers and missionaries in the seventeenth century). According to Varese (1972:82): "More than 70% of these minorities maintain permanent relations of interaction with members of the rest of the country... 35% [which includes some local groups of those already mentioned] maintain sporadic relations: but directly or indirectly, and to a greater or lesser degree, *all of the native societies are linked to the Peruvian economic system* [italics added]."

This long history of contact has not only affected the native economy but has also resulted in changes in many aspects of the culture. For example, the religion of the Amuesha, like that of many jungle groups, has an animistic base. They believe that the shaman can transform himself into a jaguar, and they are afraid of the boa, which is the mother of all the water demons. But we also find the Inca concept of the deity of the sun, whose worship is a vital part of the Amuesha's festivities. One discovers, along with the native beliefs and those which are the result of the influence of the Inca empire, a syncretism with themes such as the cross and the virgin mother of "our father." These themes have obviously been incorporated into the Amuesha religion from the teachings of the first missionaries, who established themselves in the area in 1635.

In the light of this it would be nothing more than romanticism to state that no possibility of cultural change should be introduced, especially with regard to the native religion, but rather that the natives should be left in their original state. The concept which many have of the "pure native" and the "happy savage" is a myth. The authors of this work agree with the following affirmation of the Unit for Assistance to Native Communities:

> Those who consider the native communities totally isolated from the social and economic structures which affect the rest of the country are certainly mistaken. This can only

be blamed on ignorance or on the manipulation of that concept for the benefit of those who believe it. In any case, an analysis of the native societies which does not consider said relations will be based on a false premise" (Chirif Tirado et al. 1975:258).

Today the native groups are confronting, in ever-increasing intensity, waves of people from different cultures: those searching for oil, lumbermen, hunters, colonists, missionaries, traders, travelers, tourists, students, and others throughout the jungle. The contacts and changes which result are intense and can be destructive. Furthermore, they tend to disturb the equilibrium and weaken the behavioral norms of the native culture. For instance, the Amueshas abandoned their traditional marriage ceremonies when the mestizos ridiculed them, saying, "These marriages are not legal." This appears to be one of the factors that contribute to the instability of marriage among the Amuesha today.

Furthermore, the material base of the group is now very precarious. Game animals are much farther away (and are almost extinct in some areas); consequently, it is more work to supply basic needs, and there is less and less time in which to do so because the natives are obliged to work for their *patrones* to pay off debts.

Another serious problem is that the colonists have taken possession of the land that has belonged to the Indians for many generations. Since they had little or no access to legal help, the only recourse for the Amueshas and some other groups has been to emigrate to less desirable areas where they could preserve their cultural integrity even though these places would offer fewer possibilities for subsistence. The price they have had to pay for this has been great physical hardship and psychological damage to the members of the group. Unless the territory proved to be of no value to the dominating society, in time "civilization" would, without doubt, encompass it.[1] Thus, in many cases, the native must not only contend with tensions within his own culture, but also must combat upheavals caused by contact with the outside world.

Some cultural traits favor survival in the face of contact with a dominant, larger cultural group, and others do not. For example, Ribeiro (1973:27), using as a basis his study of the history of the contact with indigenous groups in Brazil, proposes that groups which have unilinear structures, such as exogamous clans, seem to be more resistant to external, destructive factors than those with extended family structures as the largest organized social unit. For an isolated group, organization into small communities, that is to say, in extended families, is a good adaptation to the jungle environment. Nevertheless, this feature, added to a predisposition to change, could lead to the disintegration of the native society in the face of intensified exploitative contacts.

Another aspect to be considered is that within the limits of a given society, differences of behavior are not only allowed but in some cases, are even encouraged. The degree of liberty to choose alternatives varies as much within a culture as between cultures. Also, tolerance to change varies from one institution to another both within a culture and between cultures. If the pressures to change key institutions exceed the tolerance of the cultural system, the result will be individual disorientation and cultural disintegration. In the preface to "Culina Texts" Mendizábal Losack (1962:92) observes: "One of the questions which is raised while reading the following texts is, *does the Culina culture condition in those who are a part of it, an adaptable personality, capable of confronting the social and cultural changes provoked by acculturation?*—a question which Peruvian ethnologists should ask concerning every ethnic group... [italics added]."

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[1] The authors recognize that over the past years the situation of the ethnic groups has improved through the implementation of the Law of Native Communities, the Educational Reform, and other government programs which provide favorable external conditions for the Indians' community and personal development.

An additional aspect of the reality is that once contact has been established with the outside world, many natives desire change. In the Yurúa and Purus River basins, a number of Culina and Cashinahua communities are found. These groups were subjected to intensive and abusive contacts during the time of the rubber boom and fled to the headwaters, where they stayed without contact until the 1930s in the case of the Culina and more or less 1945 in the case of the Cashinahua. However, when their axes and machetes were completely worn out, they decided to again make contact with the whites who asked rubber of them in exchange for merchandise. Consider also, the case of the Candoshi. When counselled not to abandon their customs, they responded: "You want us to continue cutting off each other's heads in revenge killings? No thank you. We do not want to live like that."

We must also acknowledge that groups that have been pushed aside are eager to know the outside world, a need which is legitimately satisfied by printed literature (since radios are still scarce in the native communities and there are no programs transmitted in the vernacular). For example, an Aguaruna who had traveled to Lima, recognizing this desire in his community, wrote a book in his own language about what he had experienced during his visit. When he was asked about the matter, he replied, "We want to learn new things as well as things in our own culture. That is why I wrote this book."

The truth of the matter is, then, that the ethnic groups have had contact with the Western world for a long time, in many cases dating from the arrival of the Spaniards, and since then have been in the process of change. Change is normal and inevitable since it is the basic mechanism for cultural adaptation. Every culture is dynamic and is in a constant state of change and development; this can be positive and beneficial when the changes arise from the free choice of the society, which has had various alternatives from which to choose.

Therefore, using force to prevent a change can be simply a form of repression. On the other hand, the desire neither to force members of an ethnic group to adjust to other patterns, nor to oblige them to maintain the *status quo* (if that were possible), necessitates helping them find alternatives in order to retain their identity within a viable, strong, united, and just society whose values can survive in the face of extracultural contact.

BASIC CONCEPTS

In every culture the values, social groupings, and activities (Pike 1967) are interrelated in such a way that it is impossible to change one part without varying the whole. Furthermore, the presence of an outsider (e.g., a field worker) in a native group inevitably produces change. For these and many other reasons, it is important that the field linguist have a knowledge of the basic principles of general anthropology. The principles discussed in this section are based on the following psychocultural considerations:

- that man has diverse needs that should be satisfied for his development as a whole person
- that culture is dynamic, not static
- that certain aspects of a culture lead to the well-being of the group and its members, while others are to their detriment
- that the mother tongue is a key to maintaining cultural identity and taking advantage of new information.

Universal needs

In the heart of every human being there are material and psychological needs and traits which are common to all men. These are inherent in the human personality and are interwoven with sociocultural needs. Some of the most important ones are discussed below.[4]

Physical needs. Man has certain basic physical needs for maintaining life: he needs a geographical area designated as his sphere of life—even nomadic groups have a certain territory within which they tend to move about. He also needs food, certain health safeguards (adequate medicines and hygiene), and protection from hostile natural elements.

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[4] Since the theoretical orientations of SIL anthropologists vary considerably, we neither attempt to delineate here a complete list of universal needs, nor to follow specific lists, as for example those to be found in the works of Malinowski (1944) and Aberle *et al.* (1950).

Psychological needs. Each individual needs a feeling of security within a social context (this varies from culture to culture) and a sense of his own identity. There are various factors which contribute to a healthy concept of personal identity; among them are: to be esteemed and accepted by others; to have a feeling of personal dignity and esteem; to be aware of the value of his cultural heritage; to know that he loves and is loved; to know the satisfaction of being able to express himself in creative ways through language, art, handcrafts, work, and music; to have the satisfaction of having succeeded in something; to have hope and courage; and to hold to a moral code.

Sociocultural needs. Among sociocultural universal needs are the following: differentiation of social roles and criteria to assign roles to the members of the community, means of communication shared by the members (language), common objectives and values, norms for regulating the expression of the emotions, socialization of the members, and negative and positive sanctions for the control of conduct which are put into effect for the well-being of all.

Although one can enumerate these necessities among cultural universals, the ways in which they are satisfied vary from one society to another.

Traits which lead to the well-being or detriment of the society

All societies, like the people who constitute them, have tendencies and traits which lead to their well-being or viability in the face of contacts with the outside world, while others become a detriment to them or may even lead to their extinction. According to the values held by the authors of this work, aspects of the first type can be considered positive; those of the second, negative. As far as negative aspects are concerned, it is not a case of the culture of a minority social group being inferior or "bad" in comparison with a "good" majority or with a dominant Western culture. Rather it involves aspects which lead to the *self-destruction of the culture* and/or *the physical or psychosocial detriment of its people* or that lead to *injustices to individuals within or outside the culture*. Injustices are defined, in general, by commonly recognized values, such as those stipulated in the United Nation's "Universal Declaration of Human Rights." Traits that can be classified as *positive* are those which lead to well-being and include all the traits that are not negative. They cover the whole gamut of the social, material, and spiritual reality of a people: norms concerning marriage, family structure, kinship system, social structure of the community, social controls, world view, language, oral traditions (legends) and history, division of labor, art, music, dress, type of housing, etc.

Examples of traits which lead to well-being. The pattern of matrilocal residence with cross-cousin marriage in a jungle society, for example, is a well-adapted response to the situation and might include the following beneficial factors:

- Security for the husband when he must be away from home for whatever reason, such as to hunt or to do special work for his *patrón* (for example, extraction of rubber and wood); he can leave knowing his wife will be in good hands (those of her parents).
- Security for the wife: her parents do not allow her husband to mistreat her, which is of special importance in a society where the woman occupies an inferior position to the man.
- Security in old age for the parents of the woman: the son-in-law continues to support them.
- Social security: each member of the family has at least one group of relatives (extended family) to which he feels he belongs.
- The activities of the group are automatically structured according to a pattern of established categories along with an understanding of the functions of each. That is to say, each member of the extended family has a definite function.

- This model often provides a reciprocal redistribution of excess goods obtained by individuals.

There are countless examples of such positive aspects in each ethnic group in Peru. In fact, many scholars believe that tribal life is frequently much more significant and satisfactory for the members of a group than "civilization" is for those who work many hours a day at jobs in which they find neither satisfaction or the fulfillment of their ambitions (Sapir 1964).

Members of the ethnic groups of the Peruvian jungle evidence an extraordinary knowledge of their environment. They distinguish between plants which are edible, those which are medicinal, and those which can be used for other purposes (in construction, for example). Their adaptation to the natural resources of the jungle is complicated and promotes the maintenance of ecological balance. Their system of slash-and-burn agriculture is obviously convenient for the tropics. The cultivated areas which are later left to return to jungle are not lost, but rather slowly recuperate fertility for future cultivation (Meggers 1971). The following are two examples which serve to illustrate this adaptation to their environment:

> The Mayoruna live on hilly land near the headwaters of small rivers. There, "... as soon as the trees are cut, erosion begins. They have seen that it is best to cut the trees parallel to the hill using the trunks as terraces to hold the top soil which would be carried downhill by the rain" (Vivar A. 1975:345).

Ground satisfactorily cleared by the Aguaruna would not impress the outside observer because it has uneven borders and because some trees have been left here and there. But the fact of the matter is that these trees are often species whose fruit attract certain varieties of birds that can be hunted with the blow gun and serve to augment the meat supply for the family (Grover 1971:1).

Other customs which might appear detrimental at first glance actually show a good adaptation of the native to his environment and are adequate means to protect the rights of all the members of a society. For example, the very popular use of nettles to discipline children might seem severe, but among the Amuesha and some other groups, a single nettling is normally sufficient to teach the child to obey his parents. Afterwards, the mere threat of such a punishment is sufficient to quell misbehavior. There is no danger of permanent damage to the child,[5] and it is unnecessary to look for other, potentially harmful forms of punishments. They severely criticize parents from another culture who spank their children, but the use of nettles is always approved.

Examples of traits that are detrimental to the individual or the society. In one of the native communities, a young couple was in anguish seeing their four-month-old become gravely ill with a respiratory infection. The people, who attributed the disease to supernatural causes, counselled the parents to bathe the child in urine, feed it with the same, and put powdered tobacco into its nostrils. The anguish caused by the death of the child was felt no less intensely by its parents than that experienced by parents in other cultures; and, in all probability the "treatment" contributed to the child's death. It is evident that in such cases other means of treating the sick are needed, as well as hope and spiritual comfort.

For an example of a trait which does not favor the survival of the group, see the case of revenge killings among the Candoshi (pp. 386–87).

Examples of traits that could result in well-being or detriment. Some traits embrace both positive and negative values. That is to say, they could turn out to be both beneficial and detrimental to the society or the individual. If one were to study the pros and cons of female infanticide—as well as the infanticide of deformed males—among the Mayoruna, a custom related to that of raiding other groups or mestizo settlements to provide themselves with women and servants, it would include at least the following:

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[5] We refer to the varieties of nettles which cause stinging and itching for approximately a half hour. There are other varieties which can cause inflammation and other longer lasting discomfort.

Positive

- Furnishes a more varied genetic source for a small community, bringing genetic benefit.
- Permits the expression of aggression, needed by every human being, within the normative standards of the culture.
- Frees the woman from the responsibility for unwanted daughters and avoids the tragedy of deformities.
- Some terrorized neighbors are careful not to make incursions into Mayoruna territory, thus slowing down the rate of acculturation and enhancing the prospects for survival of the group.
- They procure implements for hunting and farming.
- It strengthens the cultural control over the members of the native society.
- The fulfillment of their objectives gives a basis for a feeling of self-identity and security.

Negative

- The women are taken by force, subjugated and intimidated. They often never become linguistically or socially adapted and so are destined to live in cultural isolation and on an inferior level.
- The captured children are raised as slaves and sometimes do not gain the same level of acceptance as the authentic Mayorunas.
- Children are exterminated by their own parents (infanticide).
- The innocent husbands, children, and brothers of the captured women are assassinated.
- The Mayorunas as well as neighboring groups live in constant fear, apprehension, and suffering realizing their inability to maintain a constant state of alertness in order to defend themselves.
- The communities of the victims organize expeditions for revenge.
- A considerable portion of the Mayorunas are preoccupied with getting to the outside world; the captives, their children, and others unite in a desire to escape the terror of reprisals and internal violence; some not only flee but take others with them.

Since at one time or another all cultures manifest characteristics which act in opposition to the well-being of their members, collective as well as individual solutions are needed. Often, the solutions take the form of cultural sanctions against the offenses and injustices perpetrated in favor of one individual at the cost of his colleagues. Not all of these sanctions are successful, and when they are not, frustration and social disintegration may result.

In other cases the question is not a matter of success or the lack of it, but rather of different anthropological interpretations. For example, Mendizábal Losack (1962:91) observes how the Culina resort to magic to satisfy their needs: "While the Culina are obviously in a state of anxiety, their culture offers relief through magic, a practice constantly referred to in the texts. For example, in La Rana 'Dsaphua' (text 25) the informant says: 'like we do in our ceremonies to obtain food'." On the other hand, Siskind (1970), later analyzing the Culina's frequent recourse to magic, showed that it is precisely this trait which impedes their making a satisfactory adaptation to their environment, since their movements are restricted by their suspicion of the motives behind every act.

Extreme manifestations of backbiting, egotism, hate, jealousy, hostility, etc., are traits which, if not brought under control, can destroy personalities and cultures. Love, joy, harmony, unity, common objectives, and mutual help build up and fortify individuals as well as cultures. But these qualities cannot be produced by imposition. They must spring from within by personal or group option.

What each individual needs is an opportunity for personal fulfillment, freely and conscientiously exercising his right to a personal decision in the face of various alternatives. As far as society as a whole is concerned, the ideal is a culture that offers its members the very best conditions for its well-being, but there is no culture completely adequate to fulfill this function. Internal and external factors at times cause pressures with which the existing cultural mechanisms cannot contend.

The attitude of a field investigator. As has already been mentioned, every human being needs to adhere to a moral code, and all cultures have such codes, although these vary a great deal both outside and even within the same culture. As Herskovits (1948:76) has said: "morality is universal." The anthropologist is no exception: he needs and has a professional code of ethics, and one aspect of his system of beliefs might well be the doctrine of cultural relativism. Following this relativism to its logical conclusion, one sees it as a system which favors the *status quo*. Evaluating relatively a cultural structure which foments exploitation or which results in the extinction of one group in favor of another, one would come to the conclusion that it is neither better nor worse than another system.

Nevertheless, even though he may try not to evaluate the cultures he studies or to judge between the "good" and the "bad," the anthropologist, the linguist, or other investigator in the field, as a human being, must recognize in all cultures the existence of injustice and suffering with regards to the individual, as well as to the group to which he belongs. Furthermore, although he may not admit it, he believes that his own rights should be respected. That is to say, although his dogma is actually relativism, not all of his actions and expectations are in agreement with that doctrine.

During the seventeenth and eighteenth centuries, epidemics of smallpox and other foreign diseases decimated the population of many groups and completely exterminated others. Those who survived became victims of extreme cruelties during the height of the rubber boom and were later exploited by *patrones* and merchants who did not pay just prices for their lumber and other products, and who at the same time charged exorbitant prices for their merchandise. In the face of individual cases of suffering and the precarious situation of the ethnolinguistic groups which survive, the field worker must make an effort to help in accordance with the available possibilities and the desires of the native community—making medicines and seeds available, helping in the organization of cooperatives, cooperating in bilingual education programs and other development projects. While such help might result in a temporary dependence, it is expected that care will be taken not to allow the dependence to become permanent. This was expressed by a leader of the Piro group: "We needed the help of the Summer Institute of Linguistics at the beginning [of the bilingual school program and community development projects], but now we can go along independently." In order to gain this confidence and independence, *the form of assistance should not destroy the traditional system of social organization, beliefs, etc., but rather should function within these systems with discernment and by means of the participation of the members of the group itself.*

The importance of the mother tongue

One of the consequences of contacts between a majority culture which has had access to reading and writing and the other benefits of education and a minority culture which as yet has not had these benefits is that the member of the latter has a tendency to feel inferior and discouraged. This is partly due to the fact that he does not recognize the positive elements of his own culture and partly because he knows that others do not acknowledge them as being positive.

Language is one of the extremely important and positive elements of a culture since it constitutes a means of communication as well as of reflecting a substantial part of the culture. It is a key trait for the preservation of group unity and sense of identity for the individual. Therefore, the fact that his language is considered worthy to be used in education and his oral cultural heritage is worthy of being preserved and propagated through the written word contributes to his expectations, his personal dignity, and his self-esteem. When those who have just become literate discover they can express themselves in writing, they not only have a means of achieving fulfillment and self-identification, but they also have the satisfaction of contributing to the preservation of their cultural values by putting their stories and traditions into written form.

The literate person who speaks a vernacular tongue also has the advantage of being able to obtain the necessary information to maintain good health through pamphlets printed in his language on hygiene and prevention of disease. Also, to give him confidence and courage, he has at his disposal, among other things, laws concerning his rights, collections of his own people's folklore, portions of the Bible, etc. To adapt himself to changes in his environment and free himself from his *patrón*, if he wishes, he has manuals of instruction for agriculture and cattle and chicken raising. An indication of the self-esteem he has once he is literate is that he now considers himself capable, like any other individual, to take advantage of the information available *in his language*, using it for his own development and defense.

On the other hand, he also needs the benefits of bilingualism. One of the conclusions of a workshop held in January, 1978, reads as follows: "Almost all groups that speak an indigenous language are found on the lowest level of society and generally are also on the fringes of the national economic life. Those speaking the vernacular do not have the same opportunities to participate in national life as do Spanish-speaking groups" (Solá and Weber 1978:9).

When an Indian lives in contact with the dominant culture, but does not speak the national language, he feels cut off and isolated. But if he is able to communicate with Spanish speakers, his social and cultural sphere is expanded, and he need not feel dominated. Bilingualism is not necessarily a manifestation of alienation, but rather can contribute to a feeling of dignity and self-esteem. An Aguaruna expressed it very well when he said, "We, the Aguaruna, are intelligent. We can learn two languages."

The use of the mother tongue in daily life contributes to the unity of a group and strengthens the local social units, preventing them from being dominated by Spanish speakers. On the other hand, bilingualism opens new doors of communication and interchange among those who speak different languages. Taking the latter into account along with the other basic concepts considered in this section, we turn now to an exposition of the philosophy and methods of the Summer Institute of Linguistics.

WHAT IS THE SUMMER INSTITUTE OF LINGUISTICS AND WHO ARE ITS MEMBERS?

Origin

The SIL was founded in 1934 by William Cameron Townsend with the desire to give practical help to the world's minority groups. Fourteen years of experience among native groups in Guatemala, especially with the Cakchiquel, had convinced him of various important principles which are presented below.

Townsend's basic principles.

(1) That the Scriptures offer to the man who accepts them a moral basis and a hope which can transform his life, giving him the necessary motivation and spiritual strength to fulfill his own deep desires as well as those of the society of which he is a member.

(2) That, although it is necessary to respect the indigenous cultures and their right to fulfillment and to reject the domination and imposition by force of foreign values, it is also necessary to make it possible for these societies to have a knowledge of the Biblical message so that they might enjoy its benefits if they so desire.

(3) That, totally apart from the spiritual motivation, the privileged of the world are obligated to help the needy and oppressed in any way they can, for they, too, have the right to develop as free people and choose their own future with an understanding of what the consequences of such decisions might be.

(4) That, since the available resources are few and provision for all the needs of the indigenous societies is impossible, it is necessary to limit ourselves to what is most important:

- translate portions of the Bible so that the ethnic groups can take advantage of their teachings if they so desire;
- promote the study and appreciation of the worth of the vernacular tongues;
- open channels of communication and cultural interchange, principally through bilingual education, always respecting to the fullest the dignity of the Indian and his culture;

- serve without discrimination by humanitarian and practical works within the scope of the existing resources; and
- cooperate, in a nonsectarian way and without participating in political movements, with academic, government, and other entities that request collaboration.

(5) That, in order to carry out this work, it is imperative that scientific methods be used (descriptive linguistics along with other disciplines—anthropology and education, for example) in order to assure that the field worker do his work effectively and well.

The founding of the twin organizations: SIL and WBT. With the vision of preparing young people for a difficult task, a course in descriptive linguistics was organized in the summer of 1934. After attending the second course in the summer of 1935 and having been approved, following an appropriate process of selection, the first researchers were appointed to Mexico.

In 1942, eight years after having begun work, SIL was incorporated in the state of California to facilitate the negotiation of agreements and contracts with academic and governmental agencies. At the same time the twin organization, Wycliffe Bible Translators (WBT), was founded. It is significant that SIL was not established in an attempt to mask the activities of WBT, but that WBT was founded to solve a problem which in time became more and more apparent: those who were enthusiastic about the work of SIL and wanted to support it experienced difficulties in understanding how it was possible that representatives of a scientific organization should also be interested in translating the Bible. At the same time, other individuals and entities enthusiastic about supporting the work of translation had difficulty in comprehending the need for a strong emphasis on the scientific aspect. The solution was to establish two organizations which together reflect the dual motivation of the members. From the beginning the public has been adequately informed about the functions of both.[6]

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[6] See for example, *Who Brought the Word*, 1963 and *Language and Faith*, 1972 (Wycliffe Bible Translators, Inc., in cooperation with the Summer Institute of Linguistics).

Financial policies. The financial policies which evolved during those first years and have since been established are as follows:

- The greatest amount of support for SIL and WBT activities, like that of its members, is provided by private donations. Each individual is responsible for his own expenses. He is supported by relatives and friends and by churches or other private groups who are interested in the work. There is no fixed budget, and salaries are not guaranteed.
- Apart from private donations, certain public institutions have contributed generously, e.g., subsidies for gasoline and printing material. It is important to note that these contributions are received sporadically and are designated for specific local projects. They are also the exception rather than the rule.

In addition to this, the members of SIL share their material possessions and intellectual capacity in a brotherly fashion. Concerning this a visiting anthropologist remarked: "I am amazed that you being from capitalistic countries are true communists in your life-style."

Methods of operation

Philosophy. SIL began with the conviction that every human being has the need and the right to fulfillment as a whole person and that he needs that which will help him maintain with dignity his cultural identity and his own personality traits. On the other hand, he must be free to adapt positively to the continuous flow of new situations which he encounters, in order to retain or recover his security and self-respect as a member of a culture which is valuable in itself and is recognized as such by others. Since contact with Western societies is an unavoidable reality for the great majority of aboriginal groups, a major function of the field worker at present is necessarily to help lessen the shock of cultural clashes as wisely and as appropriately as possible, in the face of extremely varied and complex circumstances.

Members of SIL try not to work with a paternalistic attitude which could foster dependency or domination. Their objective is to complete their task as quickly as possible, leaving behind "tools" with which the native groups can adapt themselves as they see fit to new sociological realities. The linguist must also make an effort to avoid the errors of his own society—materialism in its diverse forms, ethnocentrism, and the possible disadvantages of its economic system, among others. That is to say, he must bear in mind that a clear distinction exists between cultural domination and a fruitful cultural exchange.

In addition, SIL holds the conviction that every language has inherent value; that even in the case of those that seem destined to extinction, as a scientific organization it is obligated to make an effort to preserve data from them. This interest can be documented by the fact that time and personnel have been dedicated not only to relatively large ethnic groups but also to groups with very few speakers. In Brazil Dr. Sarah Gudschinsky worked several months with the last survivor of the Ofaié-Xavante group who suffered with tuberculosis. In Peru, studies of three languages which are about to become extinct—Andoa, Taushiro, and Resígaro—have been published.

Scientific basis. Members of SIL form a team which is organized and trained in the following manner. Young people with college degrees are trained in the basics of linguistics, anthropology, and literacy in ten summer courses held every year in six different countries. The attendance of new candidates at the course also serves as a trial period. In accordance with SIL regulations, the training is available to all who wish to take advantage of it. After being accepted as a member of SIL, the applicant is required to attend orientation and survival courses that will help him to adapt to new cultural and ecological environments. It is important that at all times he show an altruistic spirit.

After being trained and assigned to work with a certain ethnic group, the new researcher is counselled and supervised by a team of experienced specialists who act as advisers for the linguistic, anthropological, and educational work done. This consultant system, in which all the field workers are included, accelerates the work, helps to control the quality of the research, and fosters encouragement and understanding among the members of the team. Seminars on a variety of topics help keep linguists up to date on new theories and methods. Many members do advanced studies in their speciality during their sabbatical leaves.

As a result of this program, SIL offers in its 1935-1975 *Bibliography* the titles of research studies carried out on 638 languages in 30 countries; these have been published in some 190 linguistic and anthropological journals and monographs. Plans are to continue to make data obtained available to the academic world, as well as to the general public, as quickly as experienced consultants can supervise their preparation.

The majority of works published by SIL comprise descriptions of phonological and morphological systems, sentence structures, and aspects of the culture and social organization; dictionaries; compilations of folklore; and in more recent years, paragraph and discourse analyses. Nearly all of these studies concern ethnolinguistic groups which did not have alphabets in common use before the studies began. Since the majority of scientific journals do not publish data compilations and descriptive studies without theoretical conclusions, even though such publications are part of SIL's objectives, microfiche reproductions are beginning to be used to make the materials available at a reasonable cost to those scholars who need them.

As an example of SIL's scientific production, including applied linguistics—translations and contributions to the Bilingual Education Program—a detailed list is included here which was presented to the Minister of Education of Peru in a General Report pertaining to the year 1975:

Statistics of Works Published on 41 Peruvian Vernacular Languages
June 1946 - December 1975

No. of Works	Type of Work
38	Phonology: studies of the sound system of each language, one of the principal bases for establishing an alphabet.
90	Grammar: studies of word structure (meaning and order of each affix) and the syntax of each language. The studies are based on various linguistic theories, such as structural linguistics, tagmemics, generative semantics. Various theoretical papers are also included.
7	Pedagogical grammars.
18	Vocabularies and dictionaries (one publication includes lists of words in 20 languages, and another includes useful phrases in 25).
27	Comparative linguistics: studies comparing phonological, grammatical, and lexical features of various languages. These contribute to the classification of each language within a family and to hypotheses regarding prehistoric demographic movements of indigenous communities.
37	Anthropology: ethnological studies of social organization, material culture, world view, etc.
29	Legends and other folklore (there are another 24 included in educational materials).
673	Educational material: prepared in 30 languages for Bilingual Education Centers of the Ministry of Education. The breakdown is as follows: 443 Language arts: Reading, writing, and grammar. 81 Mathematics. 48 Social sciences and natural science. 21 Religious education. 41 Native literature collections. 39 Practical manuals and teaching guides.

314	Translation: Universal Declaration of Human Rights: New Testament books: summaries of portions of the Old Testament: topics covering hygiene, cattle, and poultry raising, etc.
31	Topics covering education and community development.
33	Reports and general topics.

1,297 (Grand total)

Environment for research. It should be made clear that the linguist must learn the language within the context of the indigenous life-style. To do this, he must travel to a tribal community which, in the majority of cases, is isolated and far from urban centers, without communication systems or nearby centers of supply, and which offers very few conveniences. He requires a considerable period to adapt to the environment and the sociocultural reality in which he will live and work. The linguist who masters the language has a means of communication whereby the people feel free to express themselves. Consequently, he must devote much time to interpersonal relations, attend to the sick, and lend his services in emergencies such as floods and epidemics.

The manner in which the linguist's basic plan is carried out varies considerably due to a great diversity of cultural, geographic, sociopolitical, and other factors. For example, in South America's Amazon region, particularly during the first years of the work, the isolation and difficulties in transportation required the establishment of various centers to provide the field workers with transportation and supplies, medical care, education for their children, permanent housing, supervision of studies, publication of compiled data, and other help. We are grateful to the governments which have authorized the use of such facilities, without which it would have been almost impossible to reach the majority of jungle groups. In other countries such as Mexico, the linguists are assigned from a central office located in the capital and depend on supplies obtained locally. In some countries SIL cooperates with government entities in literacy, bilingual education, and community development projects. In others the work is oriented almost exclusively towards ethnolinguistic studies and translation.

The length of time a linguist needs to complete his task depends on such varied factors as the degree of difficulty of the language, the amount of time which native speakers who are capable and desirous of helping with the studies may have at their disposal, the degree of confidence established with the ethnic group, health, facilities available, and interruptions. The time invested may be as much as twenty years. However, this period may be shorter if conditions are optimum or objectives reduced.

In any event, the linguist is responsible for his expenses, including paying an adequate salary to the vernacular language helpers who assist him in his studies or render other services. In addition, he must adjust his way of living to avoid unfavorable socioeconomic contrasts as much as possible.

Identification with the ethnic group in which they work, the aspiration of every field researcher, was confirmed in the case of two young female linguists one day as they arrived at an Amuesha community. The dogs ran out as usual to chase them off, but the Amueshas assured them that there was nothing to fear as the dogs bit only "white people."

Services. SIL is dedicated to serving people to the fullest extent of its capabilities and without discrimination. At the request of many different entities, it has been privileged to cooperate in such activities as the training of linguists and native authors; in educational projects (preparation of materials, literacy campaigns, and training of bilingual teachers); emergency flights and vaccination campaigns; community projects; training of national technicians; and training of health promoters. In all of this it has endeavored to follow the example of Jesus who said: "the Son of Man did not come to be served but to serve, and to give His life a ransom for many" (Mark 10:45).

SIL'S ATTITUDES AND ACTIVITIES IN PERU

Attitudes of the members

Each member of SIL is conscious of the fact that his cultural heritage has negative traits of which he does not approve and which he does not desire to transmit to others. The basic attitude is:

> We are fallible human beings who are continuously being renewed intellectually by a wholesome, positive, encouraging, and refreshing spiritual fountain. We wish to place this within the reach of those who could use it but do not yet possess it. We are also conscious that ethics demand that we do everything possible to contribute to our fellow man's fulfillment as a whole person. Our human and economic resources are merely a grain of sand compared with the needs. Therefore, we contribute as much as possible to the implementation of national programs, endeavoring to help the Indian communities take advantage of the assistance provided by official organizations.

SIL's policy regarding the positive traits of a culture is to reinforce them as much as possible, for example, wearing typical clothing on appropriate occasions and stimulating the use of the mother tongue by the children. As to the negative aspects, the basic attitude is that no action should be taken, but that the people must make their own decisions after considering various alternatives, for example, those found in health manuals, in the Universal Declaration of Human Rights, and in the teachings of the Gospel. On rare occasions, however, when the life of a human being is at stake, human compassion demands intervention.

In serving Peru, the members of SIL seek to work closely with government, scientific, and educational programs, making the linguistic and cultural data obtained available to the public. We deem this contribution ethically appropriate.

Out of courtesy and good ethics, the foreign members, as guests of a host nation, do not participate in internal political affairs and do not support any politicoeconomic system. They consider it the sacred right of each country to choose its own organization and social process without foreign intervention or comments. In addition, they are nonsectarian and seek to maintain a position of impartiality toward religious doctrines.

They always reject violence as a way to social progress. On the other hand, they believe that nonviolence is not synonymous with passivity, weakness, and submission to exploitation. They are certain that native cultures do not need more violence, but rather that courage, vision, and love should be stimulated to build a society with neither exploiters nor exploited, dedicated to serving every man and all men.

Activities

Identification with the objectives of the ethnic groups. SIL members believe that in each case the help given to an ethnic group should be in response to needs felt and expressed by the group itself. Rather than imposing projects upon them, then, SIL works along with them so that their aspirations might be fulfilled. Each linguist is expected to cultivate the ability to recognize the deep desires expressed to him and know how to offer help and suggest alternatives within the total context. On the other hand, some of the problems of the indigenous groups have already been publicly expressed, for instance, at the 25th Annual Latin American Congress in a mimeographed bulletin entitled "The Autochthonous Americans Give Their Opinion" (University of Florida, Gainesville, February 17-23, 1975). Some of the problems and recommended solutions are listed here, along with some of SIL's activities and methods which might be considered positive responses to them.

The following are the conclusions of the Congress, with SIL activities and methods appearing in italics following each point:

(1) That American Indians do not receive an education suited to their social and cultural reality and consequently are pushed to the fringes of society.

Literacy and bilingual education programs in cooperation with the Ministry of Education.

2. That aboriginal languages, being mostly only spoken, are considered inferior.

   Formulation of alphabets, preparation of books, compilation of folklore, and other materials in the vernacular languages; emphasis on the value of each culture and language; training of indigenous authors.

3. That it is unjust that the present sociopolitical system of the American Indian be basically that of mere subsistence.

   Programs of community development; training of Indian leaders and technicians; aid in finding markets and marketing products (always bearing in mind the objective of training them to assume responsibility and initiative, not creating dependence).

4. That the Indians do not knowledgeably participate in the politics of the social system which surrounds them.

   Through bilingual education, travel, and other means, doors are opened to fruitful contacts with the "outside" world. In addition, members of minority language groups are assisted in the acquisition of the personal documents necessary to participate in the civic life of the country.

5. That there is a lack of interethnic unity.

   Training courses provide opportunities for meeting other groups; frequently enemies are reconciled when they get to know each other.

6. That there are diverse types of organizations operating... in the native groups which, rather than raising the level of human existence, serve as elements of alienation.

   The fostering of literature in vernacular languages has resulted in a growing sense of cultural identity and has helped to avoid alienation.

Following are some of the recommendations made by the Congress:

1. Instruction in the mother tongue as a means of education according to the cultural traits of each ethnic group.

   A fundamental principle on which SIL's work is based.

2. Create autonomous indigenous linguistic institutes, directed by Indian professionals competent in the field.

   A work plan was drawn up for an intensive introductory course in descriptive linguistics, psycholinguistics, and sociolinguistics for speakers of vernacular languages in Peru.[7] *In 1978 a brief introductory course in descriptive linguistics was offered to a number of bilingual teachers.*

3. In the bilingual education programs, the teachers should be bilingual natives.

   A fundamental principle on which the bilingual education program in which SIL has cooperated with the Ministry of Education since 1953 is based.

4. In the headquarters of educational organizations in whose area of responsibility there are monolingual or incipient bilingual populations, there should be personnel specialized in bilingual education.

   SIL cooperates to train specialists in bilingual education when invited to do so by the government entities responsible.

5. Restitution of lands usurped from indigenous communities and at the same time providing implements, necessary credits, and technical assistance.

   Before the establishment of the Unit for Assistance to Native Communities, which took responsibility for such matters, SIL helped many communities with the legal documents, transportation of surveyors, and other necessary steps to acquire titles to their lands. It has also helped to obtain loans and tools. A number of SIL's agricultural engineers have given technical assistance at the request of the Indians.

6. Seek markets and promote the sale of the native products by the producers themselves.

   A donation was obtained to initiate a transportation project to facilitate the independent marketing of products by various groups—Machiguenga, Piro, Shipibo-Conibo, Ticuna, Aguaruna, and Chayahuita.[8]

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[7] SIL collaborates with the University of New Mexico in a course of this kind for native speakers of languages indigenous to the United States.

[8] For more details see Instituto Lingüístico de Verano (1975), pp. 27–31.

7. Train natives to participate in the planning and execution of integrated development programs in Indian communities.

For several years SIL has collaborated in occupational training courses and artisan workshops, and has helped some natives to attend other courses. Some of the students and leaders have participated in the planning and carrying out of development projects in the communities. For example, during a course held in an Amuesha community, the native leaders made decisions and plans for the future.

8. Preservation of native cultural values.

Folklore stories and other manifestations of cultural aspects have been published, contributing not only to the preservation of native values, but also to the understanding of these values by scientists and public officials. The use of the vernacular languages as the medium of instruction and written communication has given them greater prestige. In the case of the Piro, this has prevented the language from falling into disuse among the Indians themselves. In the case of the Amuesha, having their language in written form seems to be one of the factors which has contributed to the strengthening of their sense of ethnic identity.

Medical aid. It is well known that throughout history, isolated tribal groups have been decimated or even extinguished as a result of having come in contact with Western diseases against which they had no resistance. SIL gives emphasis to the preservation of the health of the peoples whom they serve. As a result, no group has become extinct since members of SIL have begun work in it. On the contrary, several groups which would have disappeared are now increasing in number. As an example, we cite the Arabela of the Záparoan linguistic family. In 1954, when SIL field workers first arrived, the population of the group was 40. In 1975 there were about 150 people. The increase is due to improved health and the integration of 33 persons from other ethnic groups, mainly Quechua. From the arrival of the linguists until 1976, only four adults and seven children (some of whom were abnormal at birth) died. Although their population is still very low for a viable group,[9] there is at least a chance that the Arabela will survive as an ethnic group for several more generations.

The Mayoruna, among whom SIL has recently begun to work, are seminomadic and since the time of the rubber boom had kept themselves totally isolated from "civilization." Their only contacts were sporadic attacks for the purpose of stealing women, shotguns, and other tools.

Statistics kept during the first six years after the arrival of the linguists among the Mayoruna are given in Table 22.1.

TABLE 22.1. MAYORUNA VITAL STATISTICS, 1969–1974

Year	**1069**	**1970**	**1971**	**1972**	**1973**	**1974**	**Total**
Births	2	13	21	30	34	18	118
Deaths	0	8	13	5	2	4	32
Causes of death:							
Accidents		1	1			1	3
Infanticide			2		1	1	4
Suicide						2	2
Snakebite		2	1				3
Jaguar bite		1		2			3
Homicide		1	1				2
Pneumonia			4[10]	1			5
Other diseases		3	4[10]		1		8
Stillborn				2			2

In 1971 and 1973 there were severe epidemics of influenza and pneumonia. The reduced number of deaths is due to the medical attention given by the SIL members. In 1971 a number of patients who were unconscious with cerebral malaria were saved with injections of Aralen. In addition, the linguists and SIL medical personnel, at great cost in terms of time and money, have successfully treated two cases of jaguar bite and several cases of snakebite.

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[9] We base our proposal of the minimum population for a viable group on a comparison of the state of the ethnic groups in 1900 and 1975. For more details see Ribeiro and Wise (1978).

[10] Linguist absent.

In cooperation with the Ministry of Health, vaccination campaigns have been carried out, using DPT, polio, tuberculosis, and measles vaccines.

The Mayoruna, who remember the terrors of other epidemics, have remarked, "Before, we used to die in groups due to sicknesses brought by kidnapped women and endemic diseases, but now we die one by one."[11]

From the many examples that we could add, the following have been selected:

> In 1975 a bilingual health promoter received months of treatment in Lima after being seriously hurt in an accident. The surgeon offered his services free of charge, but the other expenses, amounting to over $5,000, were covered mainly by donations from individual members of SIL and by people whom they interested in the case. This same type of help has been given in numerous cases.
>
> In 1975, there were 5,818 immunizations given in a number of tribal communities. In the first months of 1976, three immunization flights were made among the Campa, who were suffering a whooping-cough epidemic. The time invested by SIL personnel amounted to 38 eight-hour days. Their donations towards the cost of the flights were over $350.

Such assistance for specific cases is necessary, but the health problems of the tribal groups cannot be solved without the establishment of a system providing long-term prevention and treatment. In places where no facilities exist, SIL cooperates with the Ministry of Health in training bilingual native health promoters. With their services, the general health of the communities has noticeably improved. Thus, dependence on foreign sources is not created, and aspirations which cannot be fulfilled on a long-term basis are not fostered.

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[11] Many of the groups are dispersed, living in small, scattered communities, making it impossible to provide exact demographic data on the population increase from the beginning of the work of SIL in each group. The examples given represent the general tendency toward population increases. It can be shown that in the groups where SIL works, no reduction in population has been registered from the time the field researchers began their work.

A study of two Chayahuita communities, published in July 1976, exemplifies the results of this program. The charts in that article present the data given in Table 22.2, compiled by the researcher in a visit made in March 1976 (Lee and Congdon 1976).

TABLE 22.2. CHAYAHUITA HEALTH STATISTICS

	% Population of San Miguel (no health promoter	**% Population of Palmiche (with health promoter**
Sick people	48	20
Incidences of disease:		
Skin infections	3	3.5
Malaria	4	1
Intestinal parasites	28	9
Gastrointestinal infections	6	1
Respiratory infections	3.5	0.5
Sick persons who recognized they were ill	20	98
Patients who received treatment the previous year	0	98.8
Deaths attributed to witchcraft	90	20
Population with latrine	0	18

From the above and other data, one can agree with the author on the following conclusions:

> Reviewing the comparisons between San Miguel and Palmiche, there is sufficient evidence to show that the health promoter has contributed to raising the community's health standards. The inhabitants of Palmiche enjoy better health than those of San Miguel although they live in an environment much less conducive to good health. If there were opportunity to visit the posts of the forty-five other health promoters dispersed in the Peruvian jungle, similar

> results would be noted. The degree of success would be greater or less than that achieved by Juan Tamiche depending on the aforementioned factors and on the personal dedication of each promoter (Lee 1976:34).

Community development. It is not just the privilege, but also the obligation of every man to support himself and his family and to help his community. Ceasing to do so would downgrade him to the status of a social parasite, living off others without making his contribution within the unit. For this reason SIL helps the ethnolinguistic minority groups to acquire titles to their lands. It has also cooperated with the Ministry of Education and the Ministry of Health in programs which train Indians to serve as bilingual teachers and health promoters among their own groups. Additional programs equip the Indians to participate in the economic development of their community through native crafts, transportation, cattle-raising, and agriculture, fostering a general spirit of cooperation within the tribal communities.

SIL has collaborated in these programs which respond to various universal human needs to promote the development of the communities as a whole. For example, hunting and fishing have traditionally been an adequate source for the provision of proteins. However, the construction of roads has brought an influx of colonists, and this, along with normal growth of the native population, means that game animals and fish are becoming more and more scarce, causing a number of communities to suffer from lack of protein. To supply this physical need, SIL members are searching for other sources of protein appropriate for the ecology of the jungle.

Education and contact with government authorities. The members of SIL consider it a privilege to offer their cooperation to the Ministry of Education's bilingual education program. Up until the past few years the linguists have devoted a great part of their time to the preparation of basic textbooks in the indigenous languages. At the request of the Ministry, they have also taught bilingual teaching methods in the Bilingual Teacher-Training Program.

It has been advantageous for the minority groups that the Educational Reform defines education globally. This includes the education the student receives outside the school, particularly in the home and in the community. His self-image as a member of a group which possesses a valuable cultural patrimony is strengthened when part of that heritage becomes the subject of his textbooks. Moreover, the Indians themselves participate in the preparation of books. Thus, they are accorded the satisfaction and the prestige of becoming authors. At the same time they have the opportunity of expressing themselves positively for the enjoyment of others and for the preservation of community values.

Among the textbooks in the vernacular languages there are over fifty volumes which record the cultural patrimony of these groups. Furthermore, native authors have been trained and have already produced some 130 booklets on a variety of subjects of interest. These publications not only contribute to the prestige of the native culture, but they also constitute a source of ethnographic information within reach of the scholar.

Since the tribal communities are in contact with the majority culture, their members feel the need to be able to speak the national language. They also need a basic knowledge of mathematics in order to conduct their business affairs in such a way as to avoid being exploited and being perpetually in debt. Once the first bilingual school was established among the Candoshi, other communities of this monolingual group recognized the benefits and demanded bilingual education for their communities.

In addition, they need to know their rights in order to defend themselves both effectively and legally, safeguarding the interests of the community against exploitation. Thus, they avoid entering into a dependency relationship with "civilized" people or with the nearest populated centers. Here is an example of how they can be helped in this aspect:

> In 1973 some members of SIL organized a trip to Quillabamba, Machu Picchu, and Cuzco for the Machiguenga and Piro bilingual teachers. Quillabamba is

the educational district to which the Machiguenga schools belong. However, being geographically separated from Quillabamba and Cuzco, with the exception of one school, there had been no contact between the authorities and the teachers.

The Supervisor of Education in Quillabamba received the delegation very kindly and placed the teachers in contact with the Ministry of Agriculture and many other civil authorities. He also gave them a tour of the city. The morale of the teachers was boosted considerably by the interest the supervisor showed in them. In Cuzco, the teachers were courteously received by the President of the Supreme Court of that state, who accepted their requests for birth certificates.

As a result of that trip, two communities obtained civil registries, and now many Machiguengas can receive their legal documents in their own communities. Moreover, having learned to whom to go and where the offices are located, the teachers have overcome their instinctive fear of the unknown city. Several of them have returned to do official business. Once they have transportation by road, this will occur more frequently.[13]

Spiritual values. In the majority of tribal cultures, life depends on the weather and various other phenomena which are beyond human control. Therefore, the Indians recognize their dependence on the supernatural to a greater degree than is the custom in mechanized cultures, where man feels himself in control of his existence. As a result, indigenous cultures are usually less compartmentalized into sacred and secular aspects than Western ones. The spiritual penetrates all aspects of daily life, but traditional spiritual values are not always adequate to satisfy the new needs of a society in contact with the outside world.[14]

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[13] For more details on the philosophy and methodology of the Bilingual Education Program in the Peruvian jungle, see other chapters of this volume.

[14] This is amply documented by Wilson and Wilson (1954).

In this context, it would be a mistake not to recognize the need the tribal groups feel for spiritual help when facing the difficult life of the twentieth century. The teachings of the Gospel can replace fear, so common in their religions, with the certainty of the love of God. This love gives man hope and motivates him to feel and show this same love toward his brethren. These teachings are presented to the ethnic groups as an option, not as an imposition.

The need for a new moral code as a basis for the revitalization of a culture can be seen in the history of the Capanahua. As a result of their prolonged contact with "civilization," the Capanahua culture was disintegrating:

- With the propagation of alcoholism, fights, hatred and resentments arose. Occasions of drunkenness provided an opportunity to seek revenge. The victims of alcoholism felt oppressed by their incapacity to reject—due to their condition—the merchandise which the traders offered for sale. As a result, they were trapped in a cycle of increasingly greater indebtedness.
- Prostitution was introduced, and with it venereal disease.
- They lost their community social organization.
- They lost their material culture (type of housing, ceramics and other manual arts, etc.).
- Social solidarity was ruined. Robbery, rivalry, and hostility prevailed.
- Positive reactions to tuberculin tests rose as high as 90 percent.
- They felt inferior to others. They were of the lowest social class.

But many Capanahuas have shown a considerable change and overcome such tendencies, although they have never recovered their traditional material culture. As a result of a campaign against tuberculosis, many who were at the point of death recovered. The impact of having books written in Capanahua has produced a notable improvement in their self-esteem, which had suffered from more than three generations of direct contact with *patrones* and rubber hunters.

They have adopted a new life which includes a set of moral values based on the brotherly love taught in the Gospels. These, translated into the Capanahua tongue, produce joy, diligence, mutual love, forgiveness, and brotherhood. They have been involved in a gradual process of progress toward maturity and growth as whole persons. The love of God for mankind, when it is accepted, generates love toward others. When man, impelled by love, makes an effort to help others and to forgive the enmities that exist, mutual acceptance and friendship are fostered. The teachings contained in the Scriptures concerning the love of God, His care for mankind in the present, and the hope offered for the future provide stability in the face of the problems and pressures of cultural change. They provide an internal stability which would otherwise be lacking, giving the people an optimistic prospect for the future.

Love does not imply defeatism. To the contrary, many Capanahuas are now free of the exploitation they suffered when they let themselves be intimidated by their Cocama neighbors. The Cocama have a reputation among the Capanahua of being very powerful sorcerers. The Capanahua, because of fear of that sorcery, used to sell their products at the price fixed by the Cocama *patrón*. Now free of fear, they demand a fair price for their goods.

Other groups, such as the Candoshi, did not suffer cultural disintegration to the same extent as the Capanahua. They had contacts with the missionaries in the seventeenth century but defended their territory and preserved their social system almost intact. However, during the first decades of the twentieth century, they began to have sporadic contacts with *patrones*, traders, and rubber workers on the main rivers. For the most part, they did not allow them to enter their communities but had good relations with several outside the communities. Evidently due to such contacts, there was an epidemic around 1940 during which hundreds of Candoshi died, leaving a population of perhaps only a thousand.

Another factor which reduced the population was the custom of revenge killings. The entire male population was involved in these, resulting in much tension and grief. Totally apart from exterior forces, the group was headed towards self-destruction. At last, when one of the present chiefs was still young, the chiefs of the Candoshi, Huambisa, and Achual met to discuss the seriousness of the situation. To avoid the extermination of their people, they agreed to stop killing, but the agreement lasted only a short time.

However, over the past twenty years the Candoshi population has steadily increased and now has reached about two thousand. This increase is due to two main reasons: first, the new standards and hopes of the Christian ethic have almost entirely eliminated revenge killings. Thus, the men have lived to have children, and their children have also lived to have theirs. Second, they have accepted the use of medicines and have adopted improved hygienic measures. This has considerably reduced infant mortality, and other diseases have been controlled.

This is an important case history, the influences from the outside world having been reduced and the delineation of the factors being clearer than in certain other situations. With groups such as the Candoshi, SIL has contributed to the maintenance of social vitality through Bible translation. At the same time, it has helped to build bridges of communication and participation in the national life through advice and encouragement in the development of bilingual schools and other community projects.

Newly adopted Christian teachings can overcome other negative traits of the native culture. For example, a trait which predominates in the daily life of the Machiguenga is the ever-present fear of death. This influences the majority of their actions and attitudes. It is typically expressed in the reply which surprised some visitors when saying good-bye:

"Goodbye. We'll see you next year."
"I won't be here next year. I'll be dead."

If one believes he will die within a year (and, although it is sad to have to admit it, a great deal of Machiguenga history justifies such pessimism), there is not much reason to make long-term plans, such as planting coffee or cacao, beginning to raise cattle, or even building a school for the children. It is the hope of living forever in the presence of Jesus Christ, promised in chapter 14 of the Gospel according to John, which—once discovered by the Machiguenga—has encouraged many and given them a sense of security. Now they know that if worse comes to worst, there is always Someone who loves and cares for them.

At present the Machiguengas are building schools, planting coffee and cacao, raising cattle, and cooperating in efforts to develop not only agricultural production but also a network of transportation for getting produce to market. Now when a traveler says: "Goodbye, we'll see you next year," the answer which one sometimes hears, thanks to their new attitude of confidence, is: "Yes, I'll probably see you next year because God will take care of us."

Without this confidence the Indian is unable to participate actively in the integral development of his community. For example, Martín is a Campa who followed the custom of fleeing from the spirit of the dead, whenever someone died in the family. Due to deaths which occurred in the village, he had to do this every six months for several years. And each time he had to abandon his crops, he lost any benefit he might have obtained from them. Martín eventually found liberation from his fear of the dead in Biblical passages translated into his tongue. This change allowed him to attain economic stability in the face of the pressures of the dominant culture which surrounds his people. He was able to make productive the land on which he settled permanently and for which the government had granted ownership title to his community.

These cases serve to illustrate that a fruitful cultural interchange can lead to the strengthening of the tribal society. When the native community participates in such interchange of its own free will, the society enjoys better prospects for improving the quality of its community life. Thus, the Biblical message can give the Indian a new sense of values.

We wish to cooperate with the ethnic groups so that the native can recognize and value the positive aspects of his culture and have the moral strength of a new spiritual dynamic and the will to work for the common good of his fellowmen. In order to do this, he must maintain with dignity his own cultural identity and be able to answer the following question:

"Are you an Aguaruna?"
"Yes, I am an Aguaruna, and proud to be a Peruvian."

SUMMARY

In summary, the fundamental principles of SIL prompt it to serve minority groups, fully respecting their customs and their right to self-determination. SIL believes that linguistics and anthropology should contribute to the well-being of the groups studied—"well-being" which is not determined and imposed by foreigners but is significant to the tribal society. Where exploitation and domination exist, SIL reaches out with compassion to the oppressed. It recognizes that culture change is an immensely complex problem. The mere presence of scientific researchers can have a deleterious effect on a native community. According to Tax (1975:515), field workers must not only apply the available anthropological theories to a situation of change, but also recognize "that the proportion of new knowledge which must develop in the situation [on the field] is much greater than the old knowledge which can be applied." Therefore specialists in anthropology are a part of SIL. Counsel or other assistance which specialists outside the organization wish to offer is welcome, particularly from those who have experience in field work among the groups with which SIL works. In addition, we endeavor to serve both Peruvian and foreign scholars by cooperating in field work and publishing scientific material.

We recognize that for three centuries the ethnic groups of the Peruvian jungle have had contacts with the outside world which have resulted in exploitation and in the death of a great proportion of their population. Also, it is obvious that many cultural traits have been adapted effectively to the changes in their environment. At the same time, we are also certain that there are still many psychocultural clashes ahead because of ever-increasing contact. Therefore, we are convinced that it is necessary to work in such a way as to reduce the devastating effects of contact and to strengthen the unity and self-esteem of each group. With these criteria, the members of SIL affirm once more that:

> We do not believe that a foreign religion should be imposed upon the members of any community, but we do believe that every man should have access to master works in his own language, including the teachings of Jesus Christ as they are presented in the New Testament. In them we have found help and sincerely hope that others will also. It will be by his own decision that the individual chooses to seek in its pages the route for fulfilling his aspirations and those of the society to which he belongs.

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APPENDIX A

Resolution Authorizing Bilingual Education in the Peruvian Jungle

SUPREME RESOLUTION No. 909

Lima, November 28, 1952.

CONSIDERING:

That the purpose of the Government is to extend the benefits of the Rural Campaign to the jungle, where the tribes are isolated due to special geographic conditions of the terrain and to the varied linguistic characteristics of the ethnic groups:

That in order to accomplish this objective it is necessary to prepare teachers, using natives who are literate and establishing a special type of school in which, besides teaching the essential elements of basic education, the students will be trained for productive work and taught the basic [cultural] norms of [Western] civilization [necessary for participating in national life], the concept of citizenship, and principles of hygiene; and

That it is advantageous to make use of the experience acquired by the members of the Summer Institute of Linguistics of the University of Oklahoma during recent years among the jungle tribes;

IT IS RESOLVED:

1 - To organize a training course for literate natives of the Peruvian Jungle, which will function at Yarinacocha (District of Pucallpa).

2 - This course will be attended by 20 literate natives from the following tribes: Piro, Amuesha, Cashibo, Aguaruna, Huitoto, and Bora.

3 - The course will be held in collaboration with the Summer Institute of Linguistics of the University of Oklahoma and will last three months.

4 - The curriculum for the course will include:

a. Phonetics
b. Basic education (reading, writing, arithmetic)
c. Teaching methods
d. Principles of hygiene and sanitation
e. Principles of school administration

5 - The Ministry of Public Education is responsible for the fulfillment of the present Resolution, and the expenses involved will be covered by the amount designated for that purpose in the General Budget of the Republic for 1953.

To be registered and communicated.

Rubric of the President of the Republic

General Juan Mendoza
Minister of Education

APPENDIX B
Laws Related to Bilingual Education

Selected chapters from

SUPREME RESOLUTION No. 003-ED/73

Lima, February 8, 1973

CHAPTER I: EDUCATION AMONG VERNACULAR-SPEAKING GROUPS

Article 1: Educational activities at all levels and of any nature must of necessity take into consideration the multicultural and multilingual situation of the Peruvian nation.

Article 2: Where a monolingual vernacular-speaking population, or one with incipient bilingualism, exists within the jurisdiction of the Educational Districts, bilingual schools at the primary level, special programs, or nonacademic programs should function.

Article 3: In bilingual schools at the primary level and in bilingual programs, indigenous languages should be used as a vehicle of communication whenever it may be necessary. Spanish and the indigenous language will be languages of instruction in the first cycle of primary education. Reading, writing and learning of Spanish will be carried out according to methodological norms established by the Ministry of Education.

Article 4: Within the jurisdiction of the Educational Districts where a monolingual vernacular-speaking population or one with incipient bilingualism exists, schools, special programs, or nonacademic bilingual programs may also function at preschool level.

Article 5: In the Educational Districts where bilingual schools or programs exist, special curricula will be applied for bilingual education which will take into account cultural traits of the vernacular language.

Article 6: Texts and teaching materials used in bilingual schools and programs will be prepared specifically for each linguistic group by the Ministry of Education, or under its supervision.

Article 7: In bilingual schools and programs the teaching personnel preferably will be bilingual; care should be taken to have bilinguals whose mother tongue is the indigenous language and bilinguals whose mother tongue is Spanish. In case there is no bilingual of the latter type available, a monolingual Spanish speaker trained in teaching a second language and/or bilingual education may serve.

Article 8: In the offices of the Regional and Zonal Directors and of the Educational Districts in whose jurisdictions a monolingual vernacular-speaking population or one with incipient bilingualism exists, personnel with special training in bilingual education shall be assigned, when the size of the indigenous population justifies it.

Article 9: Educational extension programs, schools and programs of specialized professional training, or others dedicated to the adult population which function in monolingual vernacular-speaking areas or where there is incipient bilingualism will adapt their curricula, content, didactic materials and educational efforts in general to the culture and language of the different groups, without neglecting necessary information about other cultures and languages of the nation.

Learning of vernacular languages will be promoted. Schools will provide opportunity for increased understanding of these languages and their influence on the national language and culture.

In schools of all levels activities will be programmed for the promotion and appreciation of vernacular cultures and languages, in accord with the national policy of bilingual education and directives from the Ministry of Education.

CHAPTER II: CONSERVATION AND PROMOTION OF VERNACULAR CULTURES AND LANGUAGES

Article 10: Educational programs transmitted by means of mass media must dedicate a minimum of 30 percent of content to enhancing the appreciation of vernacular cultures and languages, including regional dialects.

Article 11: The Ministry of Education will promote studies of the vernacular cultures and languages, coordinating its action with universities and other specialized institutions.

Article 12: Individuals and institutions, national and foreign, who carry out investigations of vernacular cultures and languages within the country are obliged to present technical semester reports to the National Institute of Investigation and Development of Education.

Article 13: Publications in vernacular languages must use an alphabet approved by the Ministry of Education for each language.

CHAPTER III: THE TEACHING OF VERNACULAR LANGUAGES

Article 14: At centers of primary education for Spanish speakers, elective courses with academic credit must be programmed for one or more vernacular languages, using the methodology for learning a second language.

Article 15: Vernacular languages must be taught as second languages by bilingual teachers (vernacular language—Spanish) trained in the appropriate methodology.

Article 16: Teacher training programs must include in their curricula the teaching of one or more vernacular languages, using second-language–teaching methodology.

Article 17: The Ministry of Education will periodically authorize private institutions to teach vernacular languages, after previous evaluation of the personnel, curricula, didactic materials and equipment.

Article 18: Teaching personnel specialized in the teaching of vernacular languages must be trained only in university educational programs.

CHAPTER IV: THE TEACHING OF SPANISH AS A SECOND LANGUAGE

Article 19: The learning of Spanish by speakers of a vernacular language will be effected by applying second-language–teaching methodology.

Article 20: The curricula, content, texts, and basic didactic materials used for the teaching of Spanish in bilingual education must be authorized by the Ministry of Education.

Article 21: In educational centers and bilingual programs the teaching of Spanish must be carried out by bilingual teachers (Spanish-vernacular language) and/or a Spanish speaker trained in second-language–teaching methodology.

General Juan Velasco Alvarado,
President of the Republic

General Alfredo Carpio Becerra,
Minister of Education

Appendix C
Sample pages of the 1977 Curriculum

FIRST GRADE	SECOND GRADE	THIRD GRADE	FOURTH GRADE
Carry out activities in response to simple oral messages.	Understand the content of messages related to daily experience.	Understand the content of oral or written messages.	Understand the content of oral or written messages and give opinions about them.
Spontaneously express daily experiences, orally and in one's own words.	Spontaneously express interests and experiences orally and in one's own words.	Express orally, clearly and in an orderly fashion, interests and experiences using the language common to the community. ("Language common to the community" means the local dialect of Spanish.)	Express orally interests and experiences, clearly and in an orderly fashion, speaking in turn and respecting the opinions of others.
Beginning reading: read aloud brief, simple stories.	Read aloud brief, simple stories which develop reading skill.	Read aloud and silently brief, simple stories using adequate intonation when reading aloud.	Read aloud and silently stories related to experiences and interests, giving opinions.
Write in legible handwriting brief, simple stories, using sounds learned in reading.	Write in legible handwriting stories related to interests and experiences.	Compose brief stories based on interests, needs and experiences using legible handwriting.	Compose brief stories based on interests, needs and experiences, using legible handwriting, preferably cursive.

OBJECTIVES

1. Carry out activities in response to simple oral messages.

BASIC ACTIVITIES

The accomplishment of this objective should be based upon student participation in activities programmed to accomplish the objectives of other subjects. However, supplementary drill should be specifically programmed, with activities like the following.

- Listen to stories in which most elements are familiar. Relate afterwards what has been heard.

- Listen to and tell riddles that the student can understand.

- Play aural games with rhyming words. Ex.: cabeza-mesa; tuna-cuna-luna.

- Listen to and respond to simple commands, that refer indirectly to objects and places.

- Listen to and respond to a series of commands. Ex.: Take off your sweaters; put them on the bench and take out your pencils.

- Practice being silent.

- Observe theatrical programs: role play, plays, puppets, etc.

2. Spontaneously express daily experiences, orally and in one's own words.

As in the first objective, this objective should be accomplished during activities programmed for other subjects. However, supplementary drill should be specifically programmed, with activities like the following:

- Relate recent experiences from the home, school and community.

- Relate experiences acquired on visits to recreational spots, cultural institutes, and places of work.

- Narrate short stories, fables, and legends.

- Look at posters, photographs, pictures, and replicas of paintings. Describe them and comment on which is observed.

- Observe various objects and describe them.

- Make up stories derived from observation of large pictures and other illustrations. Ex.: A poster shows several children laughing. Why are they happy? Where will they go later?

- Compose a story all together, with the "chain technique": one child begins the story; others supply a part one after the other.

FIRST GRADE	SECOND GRADE	THIRD GRADE	FOURTH GRADE
Recognize the natural numbers, using the intuitive idea of sets.			
Read and write numerals through 9, applying the principles of place value.	Read and write numerals up to 999, applying the principles of place value.	Read and write numerals up to 9,999, applying the principles of place value.	Read and write numerals up to 99,999, applying the principles of place value.
			Read and write common fractions and decimals.
Compare natural numbers through 9, with the relationships "less than", "greater than", "equal to".	Compare natural numbers up to 999, with the relationships "less than", "greater than", "equal to".	Compare natural numbers up to 9,999, with the relationships "greater than", "less than", "equal to".	Compare natural numbers with the relationships "greater than", "less than", "equal to".
	Solve mental arithmetic exercises in addition, applying the commutative and associative properties and taking note of the unique quality of the identity element 0.	Solve mental arithmetic exercises in multiplication, applying the commutative, associative, and distributative properties, taking note of the unique quality of the identity element 1.	Solve mental arithmetic exercises applying the properties of multiplication and addition.
Add natural numbers through 99.	Add and subtract natural numbers up to 999.	Multiply natural numbers.	Divide natural numbers with dividends having a maximum of 4 digits and divisors having a maximum of 2 digits.
Create and solve number stories based on real life situations, using addition of natural numbers.	Create and solve number stories based on real life situations, using addition and subtraction of natural numbers.	Create and solve number stories based on real life situations, using addition, subtraction and multiplication of natural numbers.	Create and solve problems based on fact, using addition, subtraction, multiplication and division of natural numbers.

Show paths of motion, using arrows on a grid.	Reproduce figures using any type of grid.	Construct with or without patterns geometric shapes such as cubes, tetrahedrons, right prisms, and pyramids, after having observed these objects.	Locate points on graphs by means of ordered pairs of natural number. Recognize polyhedrons, polygons, and segments, after having constructed geometric solids.

OBJECTIVES

1. Recognize the natural number, using the intuitive idea of sets.

BASIC ACTIVITIES

- Recognize the properties of an object such as shape, color, etc.).
- Recognize properties common to various objects (whether usage, material, the owner, color, shape, etc.), and classify them forming sets. The children group themselves according to their age, sex, area in which they live, color of clothing, etc.
- Play freely with objects, classifying them according to one or two properties (for example, "Group the LARGE ones that are RED.")
- Recognize and express common characteristics, that is to say common properties, of a set of objects (largeness, owned by Manuel, made of paper, useful for writing, etc.).
- Use strings (or yarn) to set off sets of objects and name each set formed by means of labels.
- Represent graphically, using diagrams, the activities already carried out (sets designed).
- Compare elements of one set with elements of another (using lines or arrows).
- Establish correspondences between elements of the two sets and find cases in which elements "are left over", "are lacking", or "are neither left over nor lacking". Represent graphically.
- Use the expression "to have as many elements as" in the case where there are neither any "left over" nor "lacking" after the correspondences have been established. For example: "...as many bottles as tops". (We say that these sets are equivalent because it is possible to establish a one-to-one [or biunique] correspondence.) (Use the double arrow to indicate one-to-one correspondence.) (Introduce the word NUMBER, changing the expression "To have as many elements as" to "to have the same NUMBER of elements as".)

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